

Professional Amiga User MAGAZINE

March/April, 1991

Volume 2 Number 1

A Gareth Powell Publication

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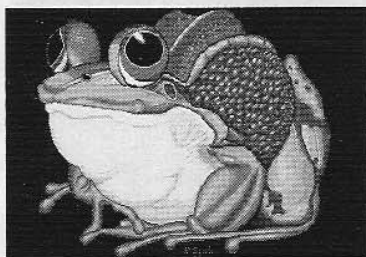
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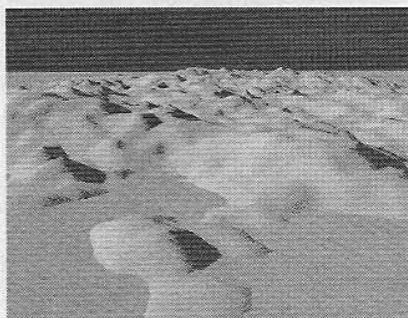


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FRONT COVER

Ray traced in Imagine (750 x 1000 pixels in 24-Bit mode/ 36hrs on 25Mhz 68030), colour separated using Professional Page 2.0. Model designed by Peter Ward using Imagine and Vista.



A Gareth Powell Publication

Editor in Chief Andrew Farrell

Production Adam Rigby
and Vanessa Farrell

Office Services Debbie Bullen

Advertising Manager Ken Longshaw

Printer Craft Printing

Distribution NETWORK

Editorial Enquiries: (02) 879 7455

FAX (02) 816 4714

P.O Box 288, Gladesville 2111

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Volume 2, Issue 1

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magazine is desktop published
using the Amiga.

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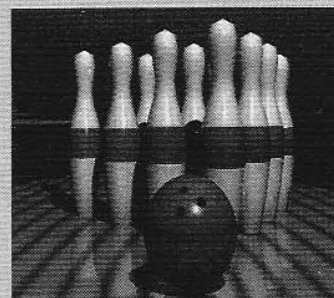
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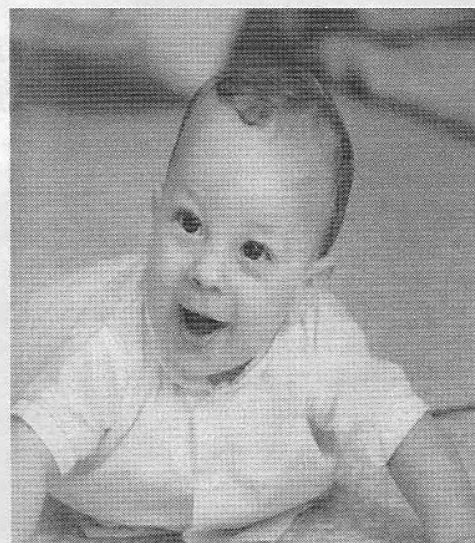
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Professional Amiga User

First Words



► Software companies are tripping over their collective marketing departments to tag the word professional on the end of all their better products. Why, in the last few months we've seen more so-called professional software arrive than ever before - Art Department Professional, Superbase Professional 4.0, Professional Page 2.0, Professional Draw 2.0, DataRetreive Professional, X-CAD Professional, GP-Term Professional (under development), TV-text Professional and there's more on the way. So, there is a professional Amiga market after all.

We note that Soft-Logic have not entered into this mode, preferring to stay in the main stream. Nevertheless, Pagestream 2.1 has joined the lucky few programs which make it onto our hard drives here at PAM. In this issue we ask you to be the judge and see if you can tell which pages were produced on Pagestream and which were produced on Professional Page. No prizes will be awarded.

Since last issue we have networked our Amiga 2000's, organised our desks, vacuumed the floor, created a file system for reader letters and asked lots more people to buy the magazine, write for the magazine and place advertisements in the magazine. Despite all this, we still managed to be incredibly late putting out our fourth issue.

This could be blamed equally on the fact our printer had a major hiccup and we are now getting printed elsewhere; we had to produce the '91 Amiga Annual, my new baby daughter arrived in the middle of everything; there was a power failure; an earthquake... okay so you don't beleive us. Well, we promise everything is back to normal.

You can now expect to see Professional Amiga User every two months. Lots of people are buying the magazine, so the future looks bright. Issue five will arrive in early May.

Professional Amiga User magazine is now ready to start flexing some muscle and get a few balls rolling. This month we announce the preliminary details of the first large scale Australian Art 'n Anim competition. Thank you to a some enthusiastic Amiga suppliers and retailers, we have managed to scrape together some great prizes. See Video Update a few pages on for more information.

We are also planning to hold a number of seminars on key areas of the Amiga. Each will be designed to bring those in attendance up to date with the latest techniques and products being used commercially for Amiga based production. There will also be courses aimed at the beginner.

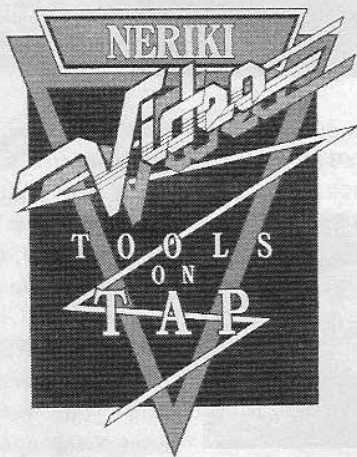
□

The Professional Amiga Challenge

Next issue we are producing a special event for all professional computer users. Professional Amiga User magazine is challenging other platform specific publications to enter equipment into a head to head comparison of the three main desktop computing platforms; MS-DOS compaatable, Apple Macintosh and the Commodore Amiga.

Two entry level machines will perform a group of predetermined tasks typical of the daily activities of an office worker. In a grand head to head show down, all the entered machines will compete against the stop watch to perform the tasks successfully. We are confident Amigas multi-tasking and the reasonably solid range of professional software will thrust our machines to the forefront of any test results. More details next month - in the mean time we will continue preparations. Consider the challenge issued. Let's see who is willing to respond.

□



Never again will you have to worry about illegal colours! This is the computer software package that knows what video people want.

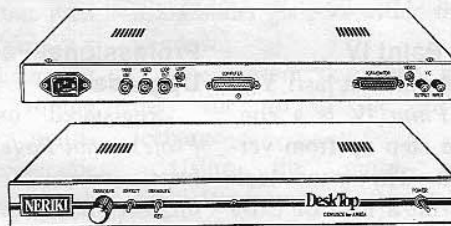
Designed to multi-task with other software and run on any model Amiga computer, Video Tools on Tap offers you forty much needed utilities and effects. The package runs in the background (when multi-tasked) without affecting the display until you tell it to do so. No graphics memory is used when inactive.

Neriki Video Tools on Tap gives new dimensions to "Desktop video application". It is now possible for all users of computers in video to produce a professional product without the frustrations of the past!

FEATURES

- Auto detect of illegal colours.
 - Fixes illegal colours in existing IFF files.
 - SMPTE (NTSC) and EBU (PAL) colour bars on request.
 - Blue Colour bars, black screen, grey scale on request.
 - Variable timing in fade up and down.
 - Vertical and horizontal adjustments from keyboard
 - Vertical and horizontal flips
 - Supports screen overscan.
 - Audio tone.
 - Auto detect for PAL and NTSC software.
- And much more!

NERIKI Genlock Superior without compromise



Many claims are made in today's market on the output quality of genlocks. Yet independent test, carried out by professional evaluators world wide, have deemed that most do not meet broadcast specifications. One brand of genlock *that does qualify* for the prestigious "professional" category is the NERIKI, which is proudly manufactured in Australia.

All NERIKI GENLOCKS meet true broadcast standards, are designed specifically for our PAL system and are not modified from the American NTSC system. NERIKI GENLOCKS encode at a full 5.5Mhz bandwidth and deliver a 600 line resolution. Even third generation tapes are considered "broadcast quality".

FEATURES

- NERIKI GENLOCKS encode at a full 5.5Mhz bandwidth with encoding capabilities of 600 lines. Even third generation tapes are considered "broadcast quality"
- Will operate with any model Amiga, including the 3000
- Component Y/C for professional application of Y/C (S-VHS) & Hi8, (model DeskTop 1189 DYC)
- Easy to use front panel control with effect key, key invert and dissolve
- Other Desktop versions available to suit specific needs
- Imagemaster models designed for top end production suites featuring composite, Y/C, RGB, Sync & Key out. 360° subcarrier. Will operate in either upstream or downstream modes
- Independently powered, does not require power from the Amiga
- All NERIKI GENLOCKS carry a full 12 months warranty.

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Deluxe Paint IV

HAM mode at last! Yes, *Deluxe Paint IV* is a considerable step up from version III. The new look model with a host of extra features will be available around the middle of this year. Support for the Amiga 3000's new Productivity mode is included, along with a lot of features previously only available on the PC version.

Version IV on the Amiga will bring the 68000 rendition back in line with the Amiga's power, giving it a strong edge over the MS-DOS machines.

Some features to watch out for are far improved gradient fills, anti-aliasing, brush pick-up and graduated fills - ideal for presentation work. *Deluxe Paint IV* will also offer an onion skin effect, as found in programs such as Disney's *Animation Studio*.

Electronic Arts are calling it the light box. This is a great function for animators.

Metamorph has been added to the ANIM menu too, so one brush can be transformed into another over several frames (read incredibly powerful easy animation).

The ANIM control panel has been improved, and all the gadgets have had a face lift to bring them in line with Workbench 2.0. Sound effects can be synchronised with frames and timing is

now totally flexible from one frame to the next. Overall, it sounds like a must for every version III owner.

Professional Page 2.0 Upgrade

Registered owners of *Professional Page 1.31* will have received a free upgrade direct from Gold Disk in Canada. Those who have not registered may now purchase an upgrade locally through Dataflow. The cost is \$70 plus \$3 for postage or \$8 for courier. You should return your old manual and disks to Dataflow at 134 Barcom Ave, Rushcutters Bay, NSW 2011. (For information on the new feature, see this month's DTP column.)

Nexus Hard Drives

Although we've all grown to love GVP for their wonderful hard drive cards and accelerator boards, the time is ripe for a little competition. Preferred Technologies, a new Amiga hardware distributor staffed by a team of serious Amiga users, have landed the Nexus products down under.

The range includes A2000 SCSI Controllers and Hard Drives, RAM Cards, SCSI Tape Backup Units and Optical Drives and some very useful utilities bundled with some products.

A trade up offer is running for a limited time. You can grab yourself one of the very fast Nexus SCSI controllers for \$379 when you trade up your old SCSI controller. For information call (02) 746 1499, or dial the

Amiga Connection BBS (up to V32) on (02) 744 6010.



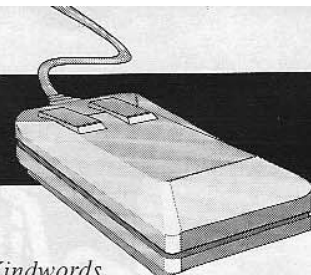
Vista Landscapes

Once you're tired of the few built in landscapes, and the billions of fractal or juliet scapes start to wear thin, take a look at the two new scape collections also distributed by Dataflow. Valles Marineris contains 88 NASA derived landscapes of Mars. With enough RAM you could easily create a unique tour of the planet. California Set #1 boasts 68 landscapes from Geological Survey Data. Areas include Southern California's Big Sur, Lake Arrowhead, Mt San Gorgonio above Palm Springs and Mount Baldy. Each scene in both collections overlaps with the next to facilitate smooth animation. RRP \$129.95

PowerWorks Bundle

Move over *Works Platinum*, here comes *PowerWorks*. Bundling a few old favourites into one neat box, *PowerWorks* includes *Maxiplan Plus*, *Kindwords* and *Infofile*.

Not a bad combination, although certainly not for serious consideration with the lack of performance pumped out by *Kindwords*. One megabyte of RAM is recommended. We've found



Kindwords

works the same regardless of how much RAM you have! At \$299, this package is probably best avoided!

Low Cost UPS!

If you need reliability from your power supply through the ups and downs of Australia's electrical storms - all Sydney Amiga Users take note - then you need an UPS, or Uninterruptable Power Supply. A new base model called the PC Might -25 from Lumen is available for \$350. The unit offers six minutes of power after a power failure. This is enough to save what you're doing, and safely exit from any applications. The unit also offers computer controlled switching of the power unit for unattended shut-down.

Reviews of the device in electronic magazines rated it highly. In test, after charging, the in-built battery provided some 15 minutes of extra time to power down.

PC-Might also provided stable power during a simulated constant power flickering typical of the kind of hiccups experienced in commercial areas located near industry. For more details contact Lumen on (03) 706 9090 or FAX (03) 706 9090.



Commodore Report Profits

Commodore International Ltd have reported increased sales and profit for their second quarter ending December 31st 1990. Sales increased some 24% to US\$384.1 million, up US\$73.4 million over the same period last year, and net income more than tripled to US\$36.5 million, up from US\$11.1 million. Share prices have risen recently with the announcement of CDTV technology and improved profile of the Amiga thanks to Newtek's Video Toaster.

Commodore have done especially well in Europe, which accounted for 85% of sales. Several European countries experienced more than 50% sales growth. No doubt this will help Newtek along in their decision of when to produce a PAL version of the Toaster.

QicTape Backup

If you have megabytes of hard drive data waiting to be backed up, QicTape might be the answer. Adhering to the PC-compatible QIC-40 format, the drive connects directly to the floppy drive port and can backup to 40 or 60 Mb tape cartridges.

The archiving software provides a simple point and click interface, including selective backup of files or directories.

We have our suspicions about the speed of this unit. One would think anybody with a hard drive probably has an external SCSI port, making this the preferred

method of adding such tape backup units. Recommended retail price for a drive with cartridge and software is \$1299. For more information contact Computermate on (02) 457 8388.

World of Commodore Show

Sydney's Darling Harbour will be host to the annual World of Commodore/Amiga exhibition this year between July 12 and 14. The event promises to attract large crowds of users and some interesting exhibits from both local and overseas companies.

Newtek will probably be in attendance as showing off the NTSC Video Toaster - rumour has it they are giving more serious thought to a PAL version every day.

The show will also host a number of seminars designed to help teachers teach about the Amiga, and no doubt some local talent will be among the overseas speakers already expected.

Star attraction of the show will be the official launch of CDTV (Commodore Dynamic Total Vision).

Pat Byrne, Commodore's Managing Director, referred to it as a modern day electronic pianola to entertain the family. He also promises there is "more to come" from Commodore real soon now. For further information about the show call (02) 906 5088.

Clean Power

Power surges and spikes are a common occurrence. Some can be enough to make your Amiga reset, or create errors on hard drives if files were busily being written when the unwelcome bonus power arrived. If you're like most, you've probably got all your computer equipment running off a multipoint power board at a cost of \$15-30 for the board.

Since late last year we've been testing a \$49 unit which not only provides a solid five point power board, but voltage surge and spike protection, along with noise suppression and a built in circuit breaker. Our office is located in a busy commercial area, and our power supply seems to be

riddled with kick-ups and failures.

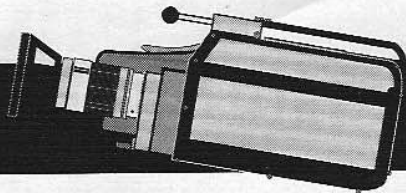
On numerous occasions the lights

flickered, the Commander system reset and unprotected devices went on the blink, whilst our Amiga carried on happily.

The unit has a three-fold protection system. As the disturbed power enters the filter board, it hits a metal oxide varistor. This component absorbs the initial surge and dissipates the generated heat. A lesser charge passes on which may contain line noise. This is removed by a filter of two capacitors on either side of a doughnut-shaped balanced choke. The choke grabs what the capacitors can't stop. At the end of the chain you should have clean stable power.

If you like the sound of all that, the SP-560E mains filter is what you need. We were impressed, especially with the price. Ask your local dealer or call:

A.H. Kirk Trading
Phone: (02) 427-1861
Fax: (02) 418 7721
P.O. Box 9990,
Chatswood, 2067



Video Applications

Computers in Film

The Academy of Cable Programming (ACP) in the United States gives awards to cable stations and the people who run them. But in the case of recent ACP award winner, Mr. Rick Rodriguez, maybe the Commodore Amiga should have shared centre stage.

The award was given specifically for the station's local daily news program for which the graphics were produced by an Amiga.

Mr. Rodriguez, a long-time Amiga enthusiast, runs 'Miavision', a Spanish language cable station that serves the Miami area. He also happens to be the station's art director - the Amiga helps him in both jobs.

He has also used Miavision's six Amigas for several high profile projects, creating graphics and titles for live coverage events.

"The addition of *DigiPaint*, *ProVideo Plus* and *Elan Performer* to my on-air Amiga arsenal means program production keeps getting easier," added Mr. Rodriguez.

Catering to a Tough Audience

Where would you find the most daunting television audience in America? Probably West Hollywood, California - a community of the rich and famous.

It is to this area that Channels 10 and 15 screen, giving information on news and issues, so it is crucial the presentation looks professional. Maybe that's why Mr. Jon Merritt, the channels' production supervisor, uses a Commodore Amiga

2000 for editing and character generation, and an Amiga 2500 for composition and animation.

"The quality of Amiga images and fonts, and its ability to manipulate material is incredible," said Mr. Merritt. "We're not the only cable station to have discovered Amiga. It's catching on everywhere," he said.

Souped-up System

Computer power is proving a force to be reckoned with in television commercials and movie production. A recent example was the use of a Commodore Amiga by Canadian art director Mr. Jeffrey Ginn, to produce an award winning Campbell's soup commercial.

To achieve the required animation Mr. Ginn worked with early versions of *VideoScape 3D*, *Deluxe Paint II* and *Sculpt 3D*. The result earned him second place in the Canadian Gemini Awards, the equivalent of New Zealand's Axis awards.

Mr. Ginn was also responsible for producing much of the graphics and signs for 'Stella', a tear-jerking movie starring Bette Midler recently released in New Zealand. Using an Amiga 500 because "it's easy to carry around", he connected it to a plotter that used razors instead of pens to cut vinyl for the signs for the film.

He also used a modified version of *Professional Draw*, the Amiga 500 with two megs of RAM, a compact but high resolution Sony monitor, and a Pacific Peripherals Subsystem 500

that allows him to use Amiga 2000 cards.

Set modelling is another area where Mr. Ginn utilises Amiga power. To achieve this he creates a basic wire frame in *Aegis Draw*, then uses Interchange to bring the image into *Modeller 3D* to generate the 3D wire frame. He also has *VideoScape* running at the same time on the multi-tasking Amiga for rendering.

Window on Manhattan

Internationally, computers are playing a central role in teaching students media operation.

A graphic illustration is of New York University art students who are successfully utilising a Commodore Amiga computer to produce a 15 minute public television program called 'Window', for Manhattan Cable Television.

The magazine style program airs several times daily and includes a variety of segments all created on the Amiga, including logos, texts, digitised photographs, video and animation.

"Although it's a lot of fun, 'Windows' isn't just for kicks. It is an integral part of the school's highly demanding graduate program in interactive television," says Mr. Red Burns, chairman of the art department.

"I've found this program converts many students to Amiga, as they enjoy its ability, allowing them to be more creative and adventurous," he added.

Studio of the Future

Animation has come a long way from the days

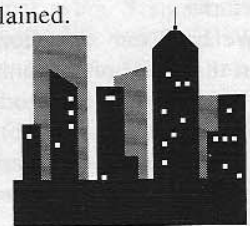
when each picture had to be and drawn.

At 'Optomystic' in Hollywood, USA, talented animator Mr. Eric Daniels uses a Commodore Amiga along with a combination of expensive and sophisticated machines, largely doing away with pencil and paper.

Mr. Daniels, who has been involved with animating several movies including *Lord of the Rings*, *Fat Albert*, and *Who Framed Roger Rabbit*, begins his work on a Commodore Amiga and, depending on the complexity of the work, then moves to a Sun workstation or sometimes a Connection Machine - a graphics oriented supercomputer with Cray style performance.

This elaborate arsenal of computers has also been used to produce a rock video that combined live video with animation, and to develop television commercials for a Canadian clothing company, the bulk done using Commodore Amigas.

"The most important things to keep in mind," says Mr. Daniels, "is that animation should be entertaining. You can't expect people to watch spinning logos and nothing else. To do compelling animations the artist must be able to duplicate how objects or people move. This is more important than drawing well," Mr. Daniels explained. □



Italian Amiga Animation Contest

Feeling creative? Why not show your graphics skills to the world, and possibly win some money at the same time? The Adriatic Coast Amiga User Club of Italy are holding their fourth annual 'Bit Movie 1991 - Competition for Computer Animation'. It will take place on April 25-28, 1991 at the 'Palace of Tourism' in Riccione Italy.

Last years event attracted over 2500 people to the exhibition. All visitors saw thirty animation works admitted to the final phase of the contest. They received a voting paper and were asked to freely indicate the three best works. The winning animation 'Waterchess' (or Milko Mrsek) from Italy, gained 2285 points. Second place went to 'The Sentinel' by Bradley W. Schenck from America.

Organisers of Bit 1991 wish to invite the Amiga folks to submit their entries now.

Competition Rules

1. All works rendered in real time on the Amiga will be accepted. 2. Each competitor may submit up to four works. 3. The animations must be submitted on floppy disk and there must be a script paper for each divided into two parts:

a.) Technical Script with the title of the animation, the program used, the time of the animation, the graphic format, the number of frames etc.; b.) Description Script max 25 lines by 80 column that will

be read by the compere to the audience during the contest. For each animation, there must also be a still picture on disk that can be used for a photograph. 4. All submissions must be sent to: Adriatic Coast Amiga Club - c/o Carlo Mainardi via Bologna n. 13 - 47036 Riccione. Italy. 5. A special commission will decide which works will be admitted to the competition. The commission will give the preference to the works that do not use public domain objects or backgrounds. 6. Deadline for all materials is March 15, 1991. 7. The winning animations will be selected by the show's attendees and by a qualified panel, that will award two different prizes. The authors of the animations admitted to the final phase of the contest will receive a special plate of Bit.Movie 1991.

Prize Of The Panel:

First Prize 1,500,000 lira
Second Prize 1,000,000 lira
Third Prize 500,000 lira

Prize Of The Audience:

First Prize 1,500,000 lira
Second Prize 1,000,000 lira
Third Prize 500,000 lira

If exchange rates are anything to go by, the 1991 prizes will apparently translate to nearly \$1000.00(US) in EACH first place division (Panel and Audience).

For more information, write to:
Adriatic Coast Amiga Users' Club.
C/O Carlo Mainardi
Via Bologna, n.13, 47036 Riccione. Italy.

FAX: (0541) 601962

Assessorato alla Cultura
object: Bit.Movie '91
Good luck, and until next issue...Arrivederci!

Broadcast Titler 2

In April of 1989 I received a press release from Innovision Technology, a Californian-based Amiga software company, extolling the virtues of their 'latest and greatest' graphics character generator program named Broadcast Titler. Some of the key phrases really caught my attention, with lines like...

'Eliminates the jaggies with an effective screen resolution of 2,160 x 1,440', '320 hi-res colours from a 4096 colour palette', '16 separate colours for each line of text', 'Up to 1000 pages of text and graphics storage possible'.

In my mind anything would have been better than fighting with the Amiga's most user-UNfriendly program, Professional Video.

Broadcast Titler sounded too good to be true, and unfortunately it was! I could never get the d#*% thing to run correctly on my 2000, it didn't like the new one meg Agnus chip.

Thankfully those days are in the past, and the folks at Innovision have managed to overcome their earlier PAL-related software problems. Broadcast Titler 2 really lives up to all expectations!

As with Professional Video, it does take control of the system when operating, so forget multi-tasking, but it's user-interface must rate up in the Amiga's top ten. Mind you, unless you

have 1.5 megs or more Broadcast Titler will not want to show you its fancy layout, so mega-memory is a must!

A hard drive is also a requirement, unless of course you like waiting for slow floppy read/writes. A self-explanatory HDinstall utility is supplied with the main software which makes installation extremely painless.

The opening screen presents you the standard blinking line cursor for text input, but that's where any familiarity ends with Professional Video. From here on all options are presented to you via on-screen requester buttons. No more remembering Professional Video's keyboard commands, or mis-placing its simplistic key-overlay sheets.

The first option is to select one of Broadcast Titler2's residential fonts, Swiss, Sports, Holiday or Minerva (my favourite). But don't let only four fonts put you off. A Font-Convert utility allows for ANY Amiga bit-mapped font to be used within this program.

What's more they are converted with little or no difficulty and are fully anti-aliased (smoothed) for optimum clarity. Broadcast Titler accepts all the 256 international character fonts and uses all accents and symbols, it will even function correctly using Color-Fonts.

Other font options include Shadow control such as direction, sizing (0-32), cast or solid and outline colouring. IFF brushes can be imported and 'Patterned'

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Thankfully those days are in the past, and the folks at Innovision have managed to overcome their earlier PAL-related software problems. Broadcast Titler 2 really lives up to all expectations!

As with Professional Video, it does take control of the system when operating, so forget multi-tasking, but it's user-interface must rate up in the Amiga's top ten. Mind you, unless you

have 1.5 megs or more Broadcast Titler will not want to show you its fancy layout, so mega-memory is a must!

A hard drive is also a requirement, unless of course you like waiting for slow floppy read/writes. A self-explanatory HDinstall utility is supplied with the main software which makes installation extremely painless.

The opening screen presents you the standard blinking line cursor for text input, but that's where any familiarity ends with Professional Video. From here on all options are presented to you via on-screen requester buttons. No more remembering Professional Video's keyboard commands, or mis-placing its simplistic key-overlay sheets.

The first option is to select one of Broadcast Titler2's residential fonts, Swiss, Sports, Holiday or Minerva (my favourite). But don't let only four fonts put you off. A Font-Convert utility allows for ANY Amiga bit-mapped font to be used within this program.

What's more they are converted with little or no difficulty and are fully anti-aliased (smoothed) for optimum clarity. Broadcast Titler accepts all the 256 international character fonts and uses all accents and symbols, it will even function correctly using Color-Fonts.

Other font options include Shadow control such as direction, sizing (0-32), cast or solid and outline colouring. IFF brushes can be imported and 'Patterned'

3D Professional

Out of the blue the kind folks at Progressive Peripherals and Software sent me their upgrade to this mind-boggling rendering package. As a registered user I was expecting an update at some future stage, but not six disks and a 96 page manual, these boys and girls don't do things in halves it seems.

Version 1.10 takes up four of the disks, whilst their new Ray-tracing module is on the remaining two. Improvements now include a World-Rendering option (allows you to add a shaded sky and ground to a scene) within the Extras menu, faster rendering thanks to algorithm finesse and scripting options have been increased.

But the major addition is the ray-tracing module which allows *3D Professional* to compete with the likes of *Sculpt 4D* and *Turbo Silver*. The module can be run as a stand-alone operation, or it can be linked effortlessly to run in conjunction with the main program. Whichever way it is run it is a breeze to use, much simpler than *Sculpt*,

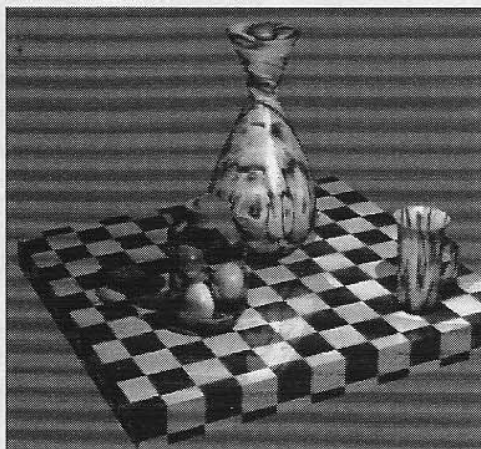
for one thing it is faster and has more options.

Batch filing gives the user the ability to trace several different images, one after the other, without even attending to the computer. Or you may prefer to experiment with one image in several different ways while you go off to the movies?

The Special Effects requester is impressive in its own right, including things like Light fall-off due to distance, Depth of field, Soft shadow intensity, Atmospheric distortion, Focus and Fuzzy transmissions (sounds like this attribute was designed on a heavy smog day in Los Angeles!) It actually has to do with setting the amount of fuzzy (blurred) ray transmissions through objects with less than perfectly clear surfaces, such as clear plastic.

A flyer that came with the mountainous package mentioned that version 2.00 "is just around the corner".

Video Update is contributed by Dennis Nicholson - editor of Graphics-Palette.



Texture mapping from 3D Professional

Australian Anim 'n Art Comp

It's time to dust off the mouse, boot up your graphics programs and let your imaginations run amok! Australia's three Amiga-dedicated publications, namely *Professional Amiga User*, *MegaDisc* and *Graphics-Palette*, have gotten together to offer you the opportunity to participate in our first Amiga graphics contest - The Oz Amiga Anim 'N Art contest.

It's really quite simple - show us your best and you could be in the running for one of the super prizes!

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Prizes

1. 1st Prize - Major
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Three commendations to other entries.

2. 1st Prize - Vidtech
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2nd Prize - Design Works

from New Horizons & Computermate

3rd Prize - Spectra Colour from Oxxi Aegis & Computermate

3. 1st Prize - Canon Still
Video Camera provided by the Hard Disk Cafe

2nd Prize - Design Works from New Horizons & Computermate

3rd Prize - Spectra Colour from Oxxi Aegis & Computermate

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The copyright of entries received will remain with the owner.

Send your entries to:

THE AUSTRALIAN
ANIM 'N ART CONTEST
P.O Box 288,
Gladesville 2111.

All entries must be received no later than June

Graphics Tips

Graphic Advice

Experienced animators and videographers, here's your chance to pick up a few tips and hopefully be inspired to contribute a few of your own. This month's collection comes courtesy of Dennis Nicholson, a regular contributor and professional Amiga User.

Sculpt 3/4D

* If using *Sculpt 3/4D* to create a mirrored or glass object that is eventually going to be rendered in front of a 'no-sky' background, you will find the object will reflect or transmit whatever colour the sky will be if it is set to a SOLID object.

Use this feature by setting the SOLID sky colour to your background image's predominant colour, then switch the sky to NONE. Mirrored and glass objects should look somewhat more convincing than if they simply reflected or transmitted blackness.

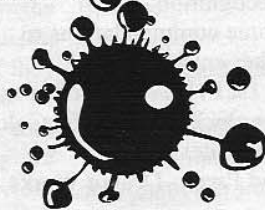
* All too often in computer animated scenes people are confronted with fast moving objects and they just don't look like they are moving fast! For example, a character running will require several leg movements to give the impression of the run. This usually ends up looking like legs 'all over the place' and it has a horrible strobe effect to it. Try smudging the leg images, that is, use SMEAR or BLEND in *Deluxe Paint III* to create a blurred (read 'fast') look. Also when utilizing fast-panning backgrounds it is

best to blur them to again avoid the strobing effect. If in doubt do a rough test.

* When digitizing in Hi-Res, or Interlace, modes with *Digi-View* you may find that a certain area of the scanned image contains the jaggies, that is, the image seems to jiggle out of control. This effect is caused by a software problem within *Digi-View* and the easiest way to eliminate it is to adjust the CAMERA TRACKING control within the program. For example, if you scan a Hi-Res image and find the 'jiggle' is on the left side of the picture change the tracking control from 0 to around -20 or -25 then re-digitize the picture.

The result is that the unwanted effect is moved off the screen area to the left and should be out of image range. You may have to move the picture (or object) you are digitizing to account for the 'shift' in tracking to re-centre it. If you find the 'jiggle' is on the right side of the scanned image then try adjusting the tracking to Plus 20 or 25 and re-digitize it. This method does not always solve the problem, but you will find it helps in the majority of cases.

Dennis Nicholson is the Editor of Graphics-Palette, the graphics/DTV disk-zine for the Am



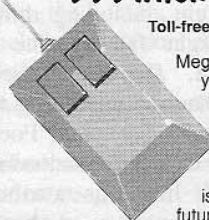
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What can Can-Do do?

Although there are a number of software titles that are often lumped together as interactive authoring tools, this is a convenience that conceals important differences. Can Do!, Deluxe Video and Amiga Vision all follow quite different intentions and you would be well advised to check which one will perform the task you require before spending money.

By Tom Ellard

► *CanDo* comes in two main parts. The main 'engine' of the program is *CanDo.library* which is placed in the libs: drawer of your system disk. The other interface program and associated files will take up a diskette or a drawer on your hard disk. Then there are a number of accessories that will need to be placed in a number of system directories.

Operation requires two disk drives or a hard drive and at least a megabyte of RAM. *CanDo* is compatible with *Workbench 2.0*. The manual is clear and cheerful but lacks some hard answers to the problems you'll soon encounter.

The program uses the concept of stacks of cards which originates with *Hypercard* on the Macintosh. However the cards are far more powerful than those of *Hypercard*, combining text, graphics, sampled sounds and animated brushes. Authoring involves designing the layout of each card and arranging the stack such that the final user may browse through the presentation without difficulty. You will need a paint program to create the backdrops for each card, and at present only *Deluxe Paint III* will create animated brushes. Text can be used from any word processor that will save pure text - I used *Word Perfect*. Sounds can be any 8SVX format file.



User Interface

The interface for *CanDo* is actually a compiled *CanDo* stack, which is clever if a bit puzzling. The controls appear in a short eight colour screen that pops up from the bottom of the main screen. The popping means that the controls move out of the way when required but also spend a lot of time bouncing around. There were times where the control panel popped down by my mistake and jammed there until reboot. Being a stack, it constantly loads in screens and gadgets from disk. The preloading of little bits and pieces required at start up is tedious, despite running from hard disk. On floppies it takes even longer. I would prefer one big slab of code that loaded just once.

But the worst effect of the compiled interface is this - if a *CanDo* stack encounters a fatal error in its definition it will quit and unload from memory leaving a crash file on the RAM disk. So if you make an error in defining your stack, for example trying to display a

non-existent card, *CanDo* itself will crash and disappear from underneath you. It's very disconcerting to be working on a complicated presentation and be suddenly dumped back on the Workbench, having to go through the whole tedious load in yet again.

Having booted the program, the first step is to specify a card. Clicking on the Window icon summons a requester that allows loading of an pre-saved IFF backdrop or the specifying of window dimensions, colours and attributes. If the window has the correct attributes it can open on the workbench screen.

Advantages

CanDo's great advantage over other packages is that it slots into the system software, calling system code to create gadgets, menus and windows. Such that a card can open a draggable, resizable window on the Workbench screen, complete with any of the features of hand written code. This makes it very easy to create desk accessories and gadgets. I was quickly able to create a music tempo calculator that popped open on the workbench behind the sequencer I use. I had hoped to create a full calculator but *CanDo* only allows integer calculations.

Once the card is defined you can place objects on it. The most common

objects are screen buttons, but other objects include timer events, text windows, animbrushes, *ARexx* events, paintings (which are generated on the fly) and sounds. Any event can trigger an instruction script. So for example a sound event can be set to execute a script upon the sound being triggered or ending. The scripts are written in a simple programming language with some similarities to BASIC, apart from some overbearing instruction names - like 'InsertChangedBufferList'. A text editor is supplied, there are also a number of helpful tools to automate the creation of commands as well as an online help system. The script can be syntax checked at any time.

Text objects are extremely sophisticated, with built in slider gadgets, movement arrows and simple word processing features. I was disappointed to find that only a certain amount of text will fit in a text window even with the slider.

Text files above two pages or so have to be broken up, which defeats the point of such a powerful interface. In comparison *Deluxe Video* has no text windows, while *Amiga Vision* will hold more text, but lacks *CanDo*'s gadgets.

Animation

CanDo will not play full screen animations unless they are first converted to animbrushes via the supplied utility. Animbrush objects can be started and stopped and moved around the screen with set velocities and accelerations. Events can be triggered to occur on given animation frames and upon collisions. In comparison, *Deluxe Video* has more control of animbrush paths, *Amiga Vision* does not support them.

There are no special transitions (such as fades or wipes) between cards. You'll need to use the other programs or use an ANIM file created in another package to create the effect. *ANIMagic* would be ideal.

Once you have created and sorted all your cards, you can browse through the stack with *CanDo* hiding in the background. All being well, the stack is saved as a project that calls upon *CanDo.library* for its operation. Although stacks are very small, the

library is quite large. To legally distribute the stack to other people you must bind the stack with the library, and the resulting file is as least as big as the library no matter how small the features used. My musical calculator ended up over 100K when bound, too large to be useful to floppy disk users.

Verdict

I cannot recommend *CanDo* for the common user, who would be better off using *Amiga Vision* for interactive displays or *Deluxe Video* for presentations.

However there is no simpler way to create Workbench accessories - all the functions are available and *CanDo*'s crashes are milder than faulty C or assembler code. It would be possible to design the accessory first in *CanDo*, and then write the code.

No other authoring system allows the creation of windows with menus. Text presentation is superior. There are many different things that *CanDo* will do, and that recommends it to the seasoned user with more complex expectations.

CANDO PROPAC 1

by George Kimpton

Aficionados of *CanDo* will find this new pack of interest. It confirmed what I have long believed, that not only are the Amigas under valued in many peoples eyes but so is some software.

Amigas are, to the uninitiated, games machines, while to those of us who know, they are extremely versatile with the sky as the limit.

CanDo appears to have been hiding its light under a bush, as they say. It is not just a programmable slide show capable of operator interaction but can in fact be a games program something similar to *AMOS*.

Since I have not, at this stage anyway, had more than a passing acquaintance with *AMOS* I will not say more in that vein.

The *CanDo ProPak1* is in fact a demonstration of *CanDo*'s abilities as a

games programmer. The pack includes a 40 page booklet in which are described the salient points of four games produced using *CanDo* plus a Paint Box, a Text Layout Tool, a KeyInput XtraTool Object and a Cross Reference tool.

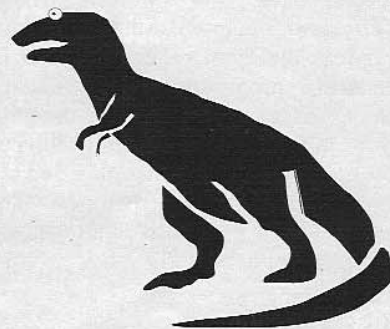
The games include a Shooting Gallery, two versions of Solitaire, *CanDo Man* (a la *Pacman*) and a CodeBuster puzzle. The manual describes how the game is put together and by using *CanDo*'s edit facility plus the book you can analyse it and theoretically work out how to write your own games.

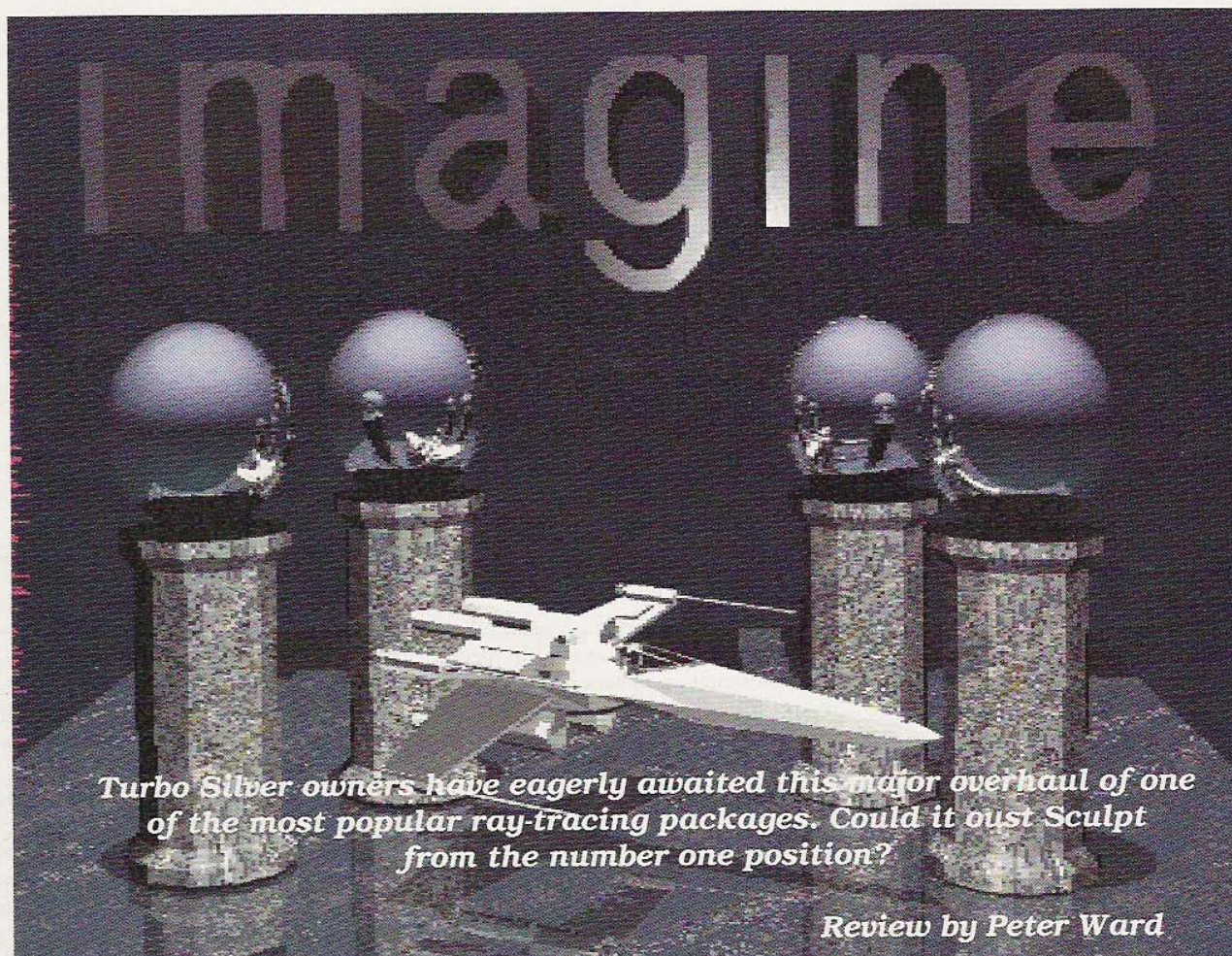
For my money the games are basic but good, especially the solitaire which hooked me.

The Paint Box program is treated in the same way and while fairly basic can give you some insight into other paint programs. Text Layout Tool increases flexibility in text control of screens allowing a choice of fonts and styles that are flowed into your custom designed area. Installation is required as per instructions.

The KeyInput Tool adds extra flexibility in key interaction responses allowing for multiple key controls. Responses are for key press, key release and key repeat operation. Cross Reference tool allows analysis of a given *CanDo* deck. It can be used to find and fix programming errors in your decks, facilitate making global changes or just generally sorting things out.

A useful tool for those interested in using *CanDo*. My only complaint, they do not tell you how to run the games, you have to find out the hard way. With two drives, put *CanDo* in Df0 and *ProPak* in Df1. Do not load *CanDo* but double click on the game. Have fun.





➤ If you were to put the question: "What would you like to see in a three dimensional rendering program?" to most professional animators, you would probably get varied replies, with speed of rendering, ease of object creation, surface textures, IFF mapping and 24 bit colour options all being somewhere amongst the "top seven" responses.

Imagine by Impulse has been heralded as the most recent Messiah of rendering programs. Stated features include a Caligari like editor, the ability to cut holes into existing objects, IFF mapping, texture mapping and sophisticated animation features. The question now is: "How well has all this been implemented?"

The Package

Imagine version 0.9 was supplied on two 3.5 inch floppies, plus a frugal Technical Reference Manual of 72 pages. One floppy contains a 68000 based version of the program and the other is for co-processor equipped machines. The program was not copy protected and installed easily onto a hard disk.

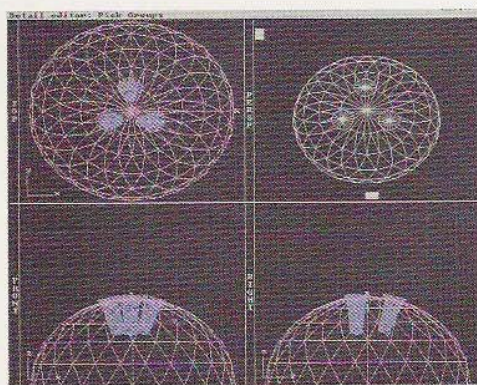
There were a few README type files on the supplied disks, but in general documentation was sparse. Frankly the pre-release version stank. There were many problems such as several non-implemented imaging modes, NTSC only wire frame animation screens, lack of Boolean operators, only one texture option and sparse bordering on cryptic documentation.

Just prior to Christmas I received

Version 1.0., with floating point and standard versions, plus texture and F/X libraries all on one "compressed" disk. There are now two Manuals, Tutorial and Reference plus some xeroxed sheets explaining the texture and special effects libraries. My opinion of the program changed radically. It is now simply stunning in its abilities.

The program is broken down into five "modules", being the Project, Forms, Detail, Cycle and Stage editors. On startup the project editor is displayed. The latter four editors introduce the user to the Quad view, which, in reality is a Tri-view à la *Sculpt 4D*, with a perspective wire frame view added.

In the Project Editor one can pick from one of the many rendering modes available with *Imagine*. Black



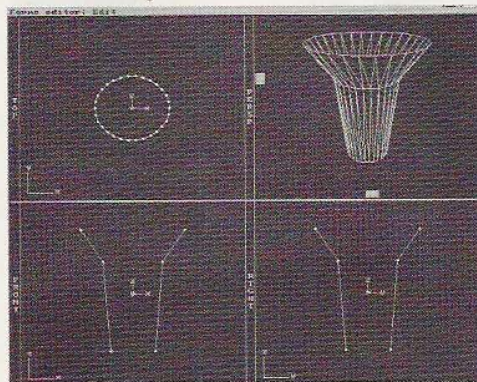
The problem: A bowling ball
The solution: Imagine's *Slice* function

and White Wire and Shaded modes, Colour Wire and Shaded, Scanline (a pseudo ray-trace mode) and Trace, which as the name suggests is the full ray-trace mode. Picture size and aspect ratio are specified here, either from several NTSC presets, or by altering the *Imagine.config* listing.

I am also pleased to say PAL sized screens and custom sized screens up to 8000 by 8000 pixels can be supported as well. *Imagine* can render images in RGBN 12 and RGB8 24 bit, ILBM 12 and 24 bit and separate R, G, B eight bit files, with the program converting the image files "on the fly" for display on Amiga monitors.

Imagine will also output to the Impulse Firecracker 24 bit video board, but NTSC output from this device makes this feature hollow for Australian and European users.

Animations can be created in either *Imagine* (*Turbo Silver*) or ANIM format, again, a welcome recognition of a de facto standard. Once rendered,



Object creation at its beginning

animations can be edited using a simple command language called Movie script. Here the sequence of play of the various frames can be altered. Animations can be played forwards, backwards, as a sequence of frames or individual frames.

Object Creation

The Forms editor allows creation of 3D objects via a simple "form". It is here where *Imagine* begins to lose a little of its gloss. While this editor allows the user to easily add primitive pseudo-spheres and tubes, that is the only option that one has to start with.

There are no other "primitive" objects in this editor. To create a cube for example, *Imagine* requires that you move several points in say a sphere to form a cube. Despite this, the forms editor does allow quick execution of this process by having a snap to grid and symmetry options.

Complex shapes can be built in the Forms editor by adding points to a selected edge and dragging them to the required location in the quad view. Points may also be similarly deleted. After playing with the forms editor for some time, I found that reasonably complex shapes could be built quite quickly.

The Forms editor is greatly enhanced by the Boolean Math Operator called Slice, in the Detail Editor. This gives the user the ability to bore holes through objects with other objects, extremely useful, but more on that later. Instant feedback given by the wire frame perspective, in the quad view, does give a quick appreciation of what is being created.

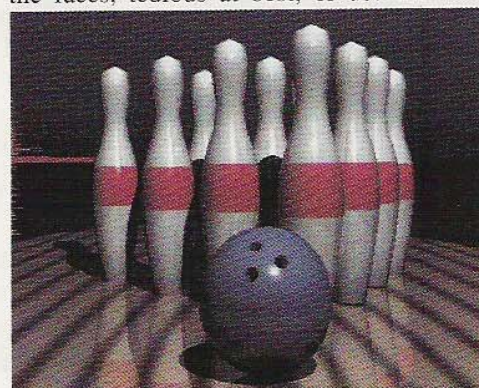
Where the Forms Editor seems to fail is that even the most basic shapes require several menu selections and mouse movements before a simple "form" is created. A larger library of Form "primitives" would be a welcome addition to the next version.

The Detail Editor has much greater control over object creation than Forms. Users familiar with *Turbo Silver* will feel right at home in the Detail Editor. Objects can be loaded from *Turbo Silver* (version 3.0 or higher),

Imagine Forms or Detail editors.

What I liked in particular was the ability of *Imagine* to convert single bitplane IFF images into *Imagine* objects, which is just as well, as objects created using third party programs such as *Interchange* and *Digiworks 3D* (version 1.03) would not load directly into the *Imagine* Detail Editor. Objects created using *Turbo Silver*'s Terrain module also fail to load into the *Imagine* Detail Editor.

There are other problems. *Imagine* 1.0 has not implemented a quick face fill function for IFF image conversions. The user must manually fill in the faces, tedious at best, or use the



The final product

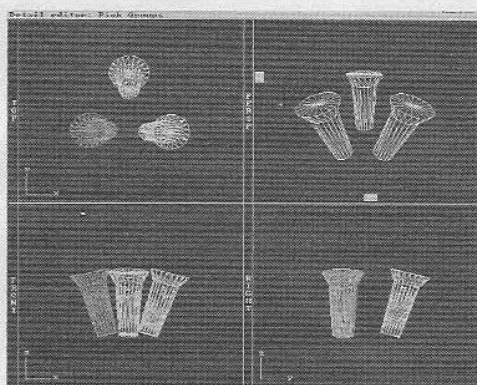
Slice operator, the latter sometimes failing with complex shapes.

What I eventually found myself doing was using *Digiworks* for example, to create a 3D font, loading it into *Turbo Silver* 3.0, then re-save the object in *Silver*, and then load it into the *Imagine* Detail editor.

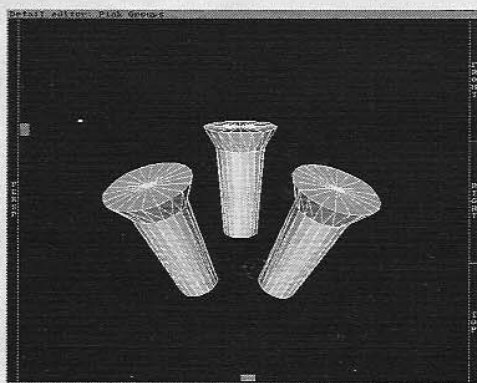
Texture Wrapping

Where *Imagine* really begins to shine is in the attributes requestor, and the ability to apply a myriad of effects to the surface of an object. Though not new to *Turbo Silver* users, these features are now available in a friendly object editing environment. To go through the list: object colour, transparency, specular, hardness, shininess, roughness, dithering, Phong shading and index of refraction can all be specified.

To go even further, *Imagine* allows IFF images and texture qualities to be



Adding detail to the bowling ball finger grips



Finger grips in shaded perspective

applied to the surface of an object. The list of textures is impressive: wood, angular, linear, disturbed, radial, dots, grid, checks and bricks. What I really like is the ability of *Imagine* to animate changes in the property of an object gradually, for example, a black lump of carbon could be transformed into a sparkling diamond during an animation sequence, a capability I have long yearned for in other rendering programs.

The Detail Editor in *Imagine* also introduces "interactive" editing of objects. When invoked, objects can be scaled, moved and rotated via the mouse with direct feed back in the quad view. A welcome change to *Turbo Silver* users, (but no big surprise for *Sculpt 4D* users).

Further refinements include being able to select full screen Top (plan), Front (elevation) and Right (side elevation) views of the object, along with a full screen, shaded perspective view

in black and white. There are many keyboard equivalents to the myriad of menu items in *Imagine*, which help speed up development times in all of the editors.

While the Detail Editor does give interactive editing to objects, it still does not have the ability to fully edit parts of an object. For example, suppose you created a model of a human being, and wanted to make the head larger. In *Sculpt 4D*, you would simply select the vertices of the head and invoke the expand requestor, unfortunately, there is no easy method of doing this in *Imagine*.

If you wish to apply changes to selected faces within an object, the program only allows changes in face colour, reflection or transparency. The notable exception being Phong shading (or smoothing) being a modification to object faces I often use with *Sculpt 4D*.

Slicing

The Slice operation in the Detail Editor is by far the most innovative feature to be added to 3D Rendering programs for some time. As an example of an intrinsically difficult object to model with just about any other program, I chose a bowling ball. The ball part is easy, but the finger holes prove to be a real problem. No so with *Imagine*.

The holes can be modeled separately, then "pushed" into the ball using the interactive editor/Quad view. When the holes are correctly placed, the Slice command can be used to sort out the common boundaries between the two with commensurate ease. This feature is a winner.

The Stage Editor is where objects are loaded and placed in their respective positions in the *Imagine* universe. It is also here where *Imagine* gains ground in having a camera based wire frame view available in the Quad view to allow exact object placement. Full screen, perspective shaded views are also available in the Stage Editor.

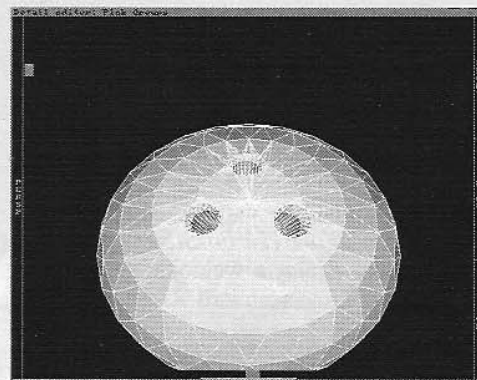
The ability to define a path for object movement is also available. Paths can also be created in the detail editor

and imported to the Stage. If changes are made to the camera location using the interactive editor, the latter requires a couple of keyboard commands or entering the Action Menu and returning to the Stage Editor before an accurate wire frame view is presented.

Lights in the Stage Editor can be placed interactively, alternatively, light co-ordinates can then be typed in, via the Action requestor. I found what appears to be a program bug here in that changes to objects in the stage editor would not take effect in the Trace mode of the Project editor, however would work when using Scanline mode, which was frustrating to say the least.

Facets of objects would simply disappear or changes in scaling would not work. Further investigation seemed to indicate that if objects were not visible within the Top Quad view of the Stage Editor, they (or parts thereof) would not be rendered. The manual states nothing about this, and no warning flag is set to indicate that this will happen.

Getting used to animation of objects within *Imagine* is helped tremen-



Slicing in action



An inspirational title-screen!

dously by a tutorial manual. Most animation commands are made through the Action menu of the Stage Editor. The total number of animation frames is specified here, along with global values such as sky and horizon colours, ambient lighting and light quality.

Lighting

Imagine has good control over lights which can be spherical, cylindrical and conical in their illumination spread, and be of any colour. Lights can also be defined to cast shadows or not, and have reduced intensity with distance. Other global functions are: Global Brush, which maps a background brush on objects with some reflectivity when using the trace mode, Star fields which are self explanatory and Genlock Sky, which makes the background sky black but still preserves reflections of the coloured sky in mirrored objects.

Still within the Action Editor/Requestor, I found that objects could be only specified to rotate, via the align requestor, a maximum of 180 degrees between any two key frames. As a test, I specified a clockwise object rotation through 350 degrees.

What actually happened was a counter clockwise rotation of 10 degrees! Again there was nothing in the manual to predict this curious "turn of affairs". Through trial and error I discovered that rotations have a maximum value of 180 degrees between key frames.

Included within the Action re-

questor are some rather amazing special effects. The first is Explode. Not surprisingly, objects within a scene can be made to explode in a variety of ways: spherical, radial, linear and along any axis.

The other effect is Ripple. I liked this the best. A wave like ripple can be induced on the surface of any object, with the amplitude, shape and frequency of the wave all able to be specified.

The Cycle Editor is yet another innovative feature of *Imagine*. Object hierarchies can be quickly and easily built up by drawing "stick figure" representations of object motions. After only a short time spent with this editor, the user interface becomes very efficient and intuitive.

As an example the Tutorial Manual takes you through the process of making a walking "man". First a stick figure, called a Cycle Object is built. The figure can be re-positioned over several key frames, have objects attached to it, then animated. Hard to explain without actually doing, but it's great.

Problems

To be critical of *Imagine*, the program needs a better level of interrupt detection, as no menu operations can be actioned, until the Quad view has finished updating any changes, which can take up to 30 seconds with complex scenes. The manuals, though adequate, do not completely explain the vast list of program operations, making trial and error a common last resort with the software. Parts of objects can not be re-scaled. There is no motion blurring available within animations.

Lastly, the wire frame perspective and black and white shaded perspective scenes in the Quad View do not seem to exactly match that of the rendered image from the Project Editor, which is a real problem considering that an image can take several hours to render, and can end up being incorrectly framed, requiring several more hours of re-rendering. Speed of updating in the Quad View is also rather slow when compared to say, *Sculpt*

4D.

Imagine will run as a background task even when it is calculating the elements of a scene, however it is rather memory hungry. I found an A2500 with three megabytes of memory to be (almost) the minimum platform on which to run the program, something not mentioned in the technical reference manual. With complex scenes, I found that five megabytes of RAM was only just adequate.

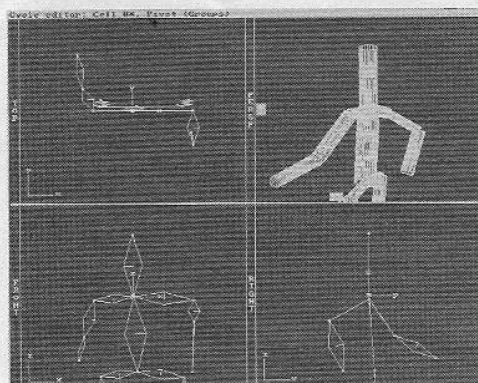
Conclusion

Imagine with all its bells and whistles has set a new standard to which other modeling programs will now be compared. Once having used Boolean operators, Cycle Editors, texture and brush maps, it is hard to get by without them.

I still find *Sculpt 4D* to be a quicker development platform, in both object creation and rendering, but the wealth of detail which can be incorporated into *Imagine* renderings more than compensates for the extra development time.

After using this program one has to now ask: Why spend several thousand dollars on Renderman Software when with a few hundred spent on this software (plus an Amiga) one can do it all, and them some...?

□



Object hierarchies can be quickly built up with the Cycle Editor

Software Review FACT CHART

Category:	Raytrac/Anim
Product:	Imagine
Version:	1.0
Publisher:	Impulse
Distributor:	Computermate
Retail:	\$595
Disks:	One (ARced)
Memory:	1Mb
Chip:	1Mb
Ideal:	1Mb Chip/4Mb & Accelerator
Manual:	Perfect Bound
Comments:	One of the best object cycling editors available - although the object editor environment is not as good as <i>Sculpt 4D</i> . Overall - Outstanding. Skippy manuals.

SCALA

Video presentation software has never looked so good. With a myriad of wipes and fades, full interactive screen buttons, and some very smart screen menus, Scala cuts a new standard for Amiga software. Andrew Farrell explains.

► While the MS-DOS world revels in packages such as *Harvard Graphics* and *Show Partner-FIX*, they can only dream about the simplicity, elegance and power offered by some Amiga packages. The latest entry to the fray impressed us immensely. *Scala* is the ideal partner for Desktop Video work, video presentations and simple interactivities. Although it lacks the multimedia capabilities of other packages, *Scala* stands tall in the areas of screen design and transitions, wipes and fades - many of which can also be applied to text. It also offers the useful run-time module for distribution of your work.

The user interface is extraordinarily clear and well designed with a definite Workbench 2.0 feel. Ironically, a bug in the Kickstart 2.0 ROM prevents interactive buttons from functioning correctly when *Scala* is run under this new operating system.

Installation

Arriving in a weighty bookshelf style box, inside you'll find five disks of Art, two of fonts and the program disk upon which is the installation program. Running it causes a window to appear with gadgets to select which parts of *Scala* you wish to install on your hard disk. (Floppy drive use is

possible, but not recommended.) The fonts are placed in your FONTS: directory, where they and any other suitable fonts may be used for titles.

Scala has a huge library of backgrounds and symbols ready for instant presentation production. Separate directories for these files and palettes and animations are created. The file requestor within the program provides gadgets which will take you instantly to the prepared directories.

You can select which drive and directory *Scala* will be installed in using a single requestor. All necessary sub-directories are automatically created and the *Scala* library and device files placed in the correct system directories.

Operation

The main menu provides a table of screens, each numbered and automatically named according to the background IFF file or opening text. Each screen may also have its own transition and wait time. Selecting the new button gives you the option of creating a new screen with either no background, one of the several dozen backgrounds from the included library or an animation, or one of your own IFF images.

As they are created, the screens

can be shuffled around, copied, moved, the layout saved separately, and the entire presentation saved as a script. The script can then be used, along with *Scala* Player, to your creation without the need for *Scala*. Creating a run time version of your presentation is fully automatic. Simply select a different device apart from the one which contains the original script and you will be prompted with the option to create a full run time version, with all the necessary fonts and backgrounds moved to the autobooting disk.

Backgrounds

The range of stock backgrounds is enough to handle most instant requirements, with some carefully painted, scanned and digitised textures ranging from marble and rock patterns, papers, grass, fabric and patterns. All are very professional 16 colour hi-res images. Onto these the equally high detail fonts look totally at home. If you have any of Gold Disks compugraphic fonts, these are equally well suited when 75 DPI screen versions are generated using Gold Disk's CreateFont program.

Scala maintains each screen and its contents as separate components. Unlike *Professional TV-Text*, the

text is not ever rendered into the background images. This means you can easily alter, edit, and introduce text transitions even after a screen has been completed.

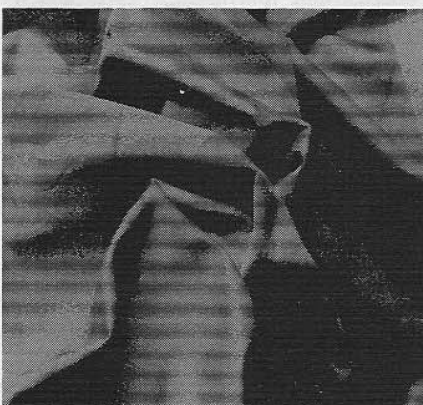
Placing text onto a background can be done on the fly, or by importing a previously edited document in ASCII form. As the text is poured onto a page from a long file, new screens will automatically be created to accommodate every line. The format of these screen can follow a predetermined layout, or you can go to each line and alter the settings individually.

Creating Titles

Each line of text can have every aspect altered including outline, shadow or 3D extruded look, margins, character and line spacing, colour and transition. Some of these characteristics can be further altered including the shadow length, direction or outline thickness, colour. Text can be bold, italic or underlined.

Transitions available can be executed at ten different speeds, with forty different transitions included in the current version - some of these were added after the manual was finished indicating more may appear in the future.

Most are some form of wipe, including blinds, bricks, swirls and straight wipes. Text can be made to fly onto the screen from nine different directions, with the alternative of constant speed, or to ease in gradually, much like *Deluxe Paint III's* animation option.



The included backgrounds allow for some striking presentations.

Unlike *Pro-Video*, there are no transitions which involve the x-axis such as flips or spins. However, *Scala* more than makes up for this lack in sheer ease of use and simplicity.

Apart from text, you can also place symbols onto the screen. A large range are included, typical of the sort of icons you find on signs and stamped on products. You can also select from any of your own IFF brushes.

Editing your final screen layout is easy. You can move lines of text, edit text, move symbols, import a new background much like a WYSIWYG wordprocessor. Changing all of the aforementioned settings is equally simple, most are simple gadgets or requestors.

Interactive

Scala offers basic interactive buttons on any screen. You may define up to twenty buttons. Each may jump to any other screen when clicked on. Creating and editing these buttons is very straightforward. To create a button in the button menu you simply place a box around the screen area required to act as a button - a piece of text will do. The menu then offers a default 'jump to' location. You can easily change this. The button can be toggle to change the enclosed area to inverse, or remain the same. I managed to set up a mouse driven information booth type display in minutes using this system.

Although far less powerful than *Amiga Vision*, *Scala* is considerably quicker to set up and works well for the most commonly used screen jumping interactive.

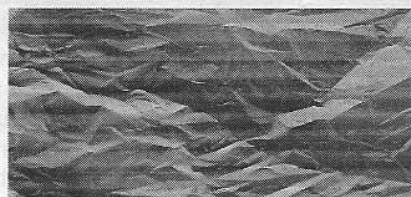
Conclusions

Scala certainly lacks many of the bells and whistles of other packages. However, based on the speed at which the menus operate, the ease with which changes can be made, and the wide number of transitions offered, it certainly has its place in the presentation and interactive market. The biggest let down is the price. When it comes to multimedia bangs for your bucks, *Scala* doesn't keep up with \$199 *Amiga-Vision*. *Scala* will cost

you over \$500. If it offered support for music, sound and external video devices, this kind of price would certainly be justified.

When those features are added, we'll see a lot of people giving *Scala* serious consideration. In the mean time I would still recommend it to presentation designers and desktop video heads as yet another solution. Where *Scala* wins is its incredible ease of use, amazing number of well designed backgrounds and powerful editing facilities. Some of the well endowed but harder to use programs could learn a lot from the *Scala* screen designs and menus.

A well thought out package, with solid documentation. A little unstable in this its first release. No doubt *Scala* will improve with time. Right now, the price is prohibitive for most.



Scala contains over 60 different textured backgrounds.

Software Review FACT CHART

Category :	Presentation
Product :	Scala
Version :	1.0
Publisher :	Digital Vision
Distributor :	Computermate
Retail :	\$549
Disks :	Y
Memory :	1MB
Chip :	1MB
Ideal :	A few Meg of RAM and Hard Drive
Manual :	Bookshelf
Comments :	A professional product, with a high price tag and a lack of multimedia features which could make it more complete. Ideal for silent presentations, simple interactives and desktop video. Brilliant collection of ART included.

PageStream 2.1

VS

Professional Page 2.0

Desktop publishing can be a source of joy or it can lead to constant frustration as you battle the short comings of your chosen software. Professional Page and Pagestream have dominated the Amiga publishing software market. Are they equal foes?

Andrew Farrell reports.

► When we first decided to publish *Professional Amiga User*, there was no question as to whether the Amiga was capable of professional quality work. *AmigoTimes* magazine, the now defunct Canadian publication, proved it was possible to produce a full colour, glossy magazine, which looked every bit as good as the best traditionally produced computer publications. The product which helped make it possible was *Professional Page*. Other Amiga magazines are also produced using this program - a fact which has been constantly questioned by various local proponents of the ever popular

Pagestream.

With the arrival of *Pagestream 2.1* and *Professional Page 2.0*, it seemed a good point to draw a head to head comparison between these two programs. Both appear to offer similar capabilities. Both will handle colour separation, outline fonts, rotated text, clip-art and a wide range of fonts. On closer inspection, there are some critical differences.

Starting Out

The latest version of both programs include brand new ring-bound manuals. *Professional Page* includes a video tutorial. *Pagestream* has an excellent Quickstart guide. Both programs spread across three disks. Installation is straightforward. All the necessary fonts, and drivers are copied by the one procedure.

Professional Page requires a small alteration to your startup-sequence. On face value, *Pagestream* has the smarter manuals.

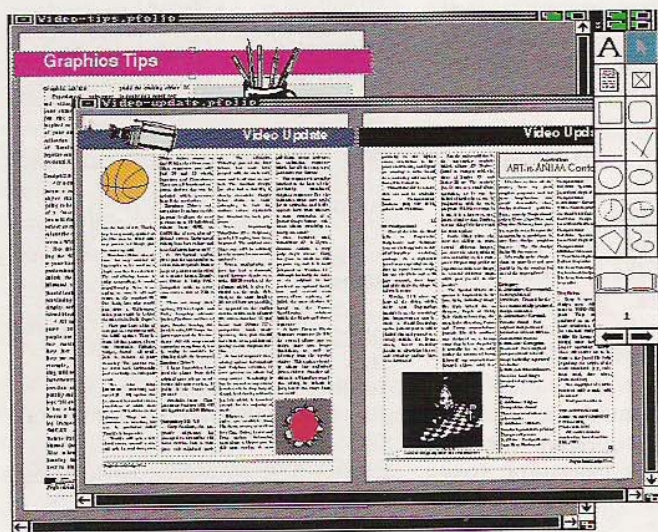
Both are generally well indexed, and carefully designed.

When you launch the applications, both open with a blank work area. *Professional Page* allows you to select the video mode from within the program. You have a choice on interlace off/on, black and white or 16 colour mode. *Pagestream* requires these settings to be made from the icon tools, with the added option of a four colour mode.

If you're serious about desktop publishing, you'll have a flicker fixer, Multisync monitor and at least two megabytes of RAM. More is useful. Both programs work better with some kind of accelerator board. Our two main workhorses are fitted with 68030 boards. One machine has 3Mb and the other 7Mb, mainly for handling scanning.

Menu and Screen Layout

Both programs have a serious look and feel, however I must criticise the apparent disorganised fashion in which *Pagestream* functions are arranged. Similar functions are spread across different menus. *Professional Page* is an organised, solid looking package, especially now it has Workbench 2.0 style gadgets. *Professional Page* has the better file requestor, complete with a



Pagestream 2.1

Feature

button for as many available devices as will naturally fit.

Pagestream insists you enter the device name, or step through each device until you find the one you need. The tool box containing the main editing gadgets can be moved around the screen to facilitate your particular preferred work arrangement using *Pagestream* - however the downside of this is the box must be clicked on whenever you change from another application screen to *Pagestream*. *Professional Page* has better looking tools, but they are fixed to the right side of the screen; on the tool box there is a very useful window positioning gadget for selecting the viewing area when zoomed in.

Creating a page

Pagestream allows multiple documents to be open at one time, whereas *Professional Page* only allows one. Both programs require you to begin by creating a new page. *Pagestream* then lets you simply select next to go to a new page, whereas *Professional Page* insists each new page be created the same way. So, a *Pagestream* folio contains pages which must all be the same size, whereas *Professional Page* offers complete control over every page.

Each *Pagestream* document sits in its own sizable window complete with slide gadgets. *Professional Page* renders the current page to the middle of a single work area.

Both programs allow you to delete, move and insert pages using completely different methods. *Professional Page* offers the benefit of being able to save individual pages, complete with all the page elements, allowing them to be easily inserted in other documents.

For Postscript users, the *Professional Page* created page window also offers an additional Postscript specifications menu with complete control over the position of the page in the output area, crop mark positioning, scaling, rotation, portrait, landscape and centering of the page. *Pagestream* achieves some of these functions,

however once a page is created as landscape or portrait it cannot be changed. *Pagestream* handles the positioning of pages in the output area automatically, fitting the page in the most efficient way possible.

Page Elements

All page elements are placed in a box. *Pagestream* has two box types; objects and columns. The contents of objects are stretched if the box is resized, whereas columns, which may only contain text, may be altered affecting only the flow of the text contained within them. *Professional Page* does not allow text to be stretched, and sizing a box does not affect the contents at all. To size up a graphic of any kind you must use % scale. *Pagestream* certainly offers more power in this area - with the added facility to proportionally size an image during a paste operating. To rescale in *Pagestream*, you simply cut the image box, select paste and rescale using the mouse. You can also enter specific percentages, which is the only way to scale in *Professional Page*.

The position of a box can be altered easily in both packages using the mouse, or direct x,y location. *Pagestream* also offers box positions relative to the right edge of the page - a very handy option. Objects and columns can be moved from page to page or in *Pagestream* from document to document.

Professional Page offers a simple delete function, whereas *Pagestream* provides a more powerful cut and paste facility.

Creating Columns

Pagestream offers superior column creation, creating column

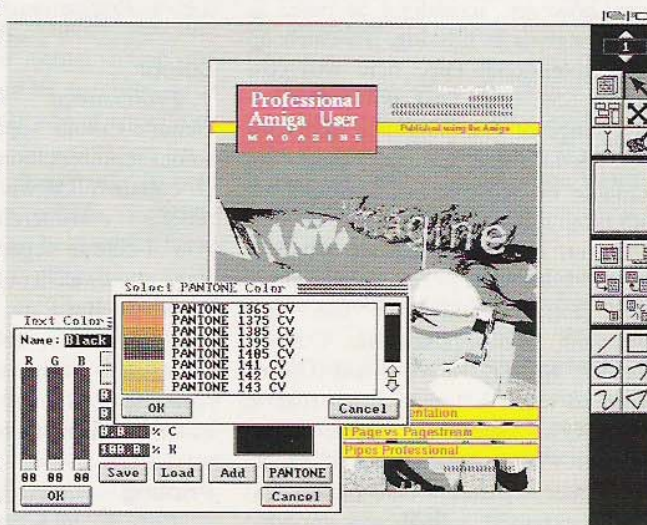
boxes according to user selected settings. *Professional Page* provides column guides which boxes must be snapped to. Both programs offer good control over position, gutters and margins.

Both programs offer user definable grids with a snap-to function - with *Professional Page* giving the most flexibility here. However, *Pagestream* makes up for lost ground in this department by providing horizontal and vertical guides which can be placed and used to align boxes quickly. These facilities are great for design forms and for keeping different page elements properly aligned.

Document View

Both programs have excellent control over magnification, with the option of facing pages. Only *Pagestream* allows you to design whilst viewing facing pages. Only *Professional Page* enables you to change view while the screen is still being updated. Both programs have similar keyboard short-cuts for this function. *Pagestream* offers a very handy user-selectable zoom, allowing you to quickly view any part of the display at a much higher magnification.

With *Professional Page*, your view is updated to reflect any change - often much more is refreshed than appears to be necessary. Text rendering seems



Professional Page 2.0

slower than *PageStream* when large amounts of text must be displayed. *PageStream*'s text rendering can vary depending on the type of font being displayed. Sometimes changing page contents in *PageStream* will leave junk on the screen. The whole screen can be updated and the mess erased by selecting one of the slide gadgets on the document window.

Text and Fonts

PageStream has superior font handling on specification, with an in-built font manager and the ability to read *PageStream*, Compugraphic and IBM type Adobe Type 1 or 3 fonts. In practise I found *PageStream*'s reliability with different fonts was unpredictable. Some fonts will not print in landscape mode. Some are very very slow to render to the screen. *Professional Page* offers its own metric fonts and chunky screen fonts or outline fonts using Compugraphic supplied data. Both programs handle Compugraphic fonts well, but they are not compatible. *PageStream* includes a utility to convert Mac fonts; a similar utility is available for the *Professional Page*.

PageStream does not include the standard 35 Adobe fonts included in most laser printers - most of the fonts included are decorative. The equivalent to Garamond, Helvetica and Times are there, however, something as basic as Zapf Dingbats is missing. To catch up with *Professional Page* here will cost another \$59. Gold Disk now publish a good range of Compugraphic fonts for *Professional Page*, and many others are available on request. So, I would put both programs on par here.

PageStream offers a wide range of applied styles apart from the usual Bold, Italic and Normal you can also Backslant, Double Underline, Outline, Shadow, Mirror, Reverse and Upside Down to name a few. Editing text in columns is fastest in *PageStream* - however *Professional Page* offers an even better separate article editor. text can be exported, edited and imported

with a single keystroke with all the formatting in tact. *Professional Page* also provides a full range of embedded commands to set typesetting specifications. Both programs provide style tags which work well. However, when it comes to hyphenation and justification, *Professional Page* produces much better looking columns of text. *PageStream* seemed a bit quirky in this area.

PageStream has a wonderful method of handling TABs, but lacks *Professional Pages* internal box margins.

Graphics

PageStream can import more graphic styles and handles proportional scaling best, but only displays a two colour on screen compared to *Professional Page*'s grey scale. Both programs handle 8 and 24 bit images. *PageStream* offers separate angle and density settings for each image. *Professional Page* is a lot faster at re-rendering IFFs during magnification changes and has better cropping facilities. *Professional Page* works reliably with structured clip-art, whereas *PageStreams* much faster rendering was hindered by occasional failings and even complete program crashes. Although *PageStream* does offer some good editing facilities for clip, I would still tend to use a separate draw program such as *Professional Draw 2.0*.

Colour

Professional Page has full Pantone-Colour support. *PageStream*'s colour representation only works well in 16 colour mode which slows down the program considerably. Both program also 4-colour separation. *Professional Page* allows easier control of angles and densities. Both programs handle tints and mechanical colours. *Professional Page* has far superior on-screen representation of colours using advanced dithering techniques.

Printing

PageStream keeps it simple, with the

loss of power. *Professional Page* offers more settings, better dot-matrix quality, more Postscript control and more complexity. For example Postscript settings must be set for every page individually in *Professional Page*, whereas *PageStream* has a couple of menus for the entire document.

Both programs can cancel printing, output to disk or lynotron printer without problems. *PageStream* will even rotate the output page to take best advantage of the print area and reduce material usage.

Conclusions

In this brief but comparative look at both programs, you can see there are many pro and cons for both packages. There is no clear winner.

We carry out a range of publishing tasks here at *Professional Amiga User*. At this time we are tending to stick to *Professional Page* for critical work where reliability matters. *PageStream* is doing some of our page design, and we certainly enjoy the extra speed. However, the text formatting can be a right pain, as can the occasional program bombs, which are far more prevalent than *Professional Pages* once in a blue moon.

If I had my way, I would say buy both programs, and you'll never be without the right tool. If you do a lot of colour work, *Professional Page* is the only way to go. If you're just after a fun program to fiddle with, go for *PageStream*. □

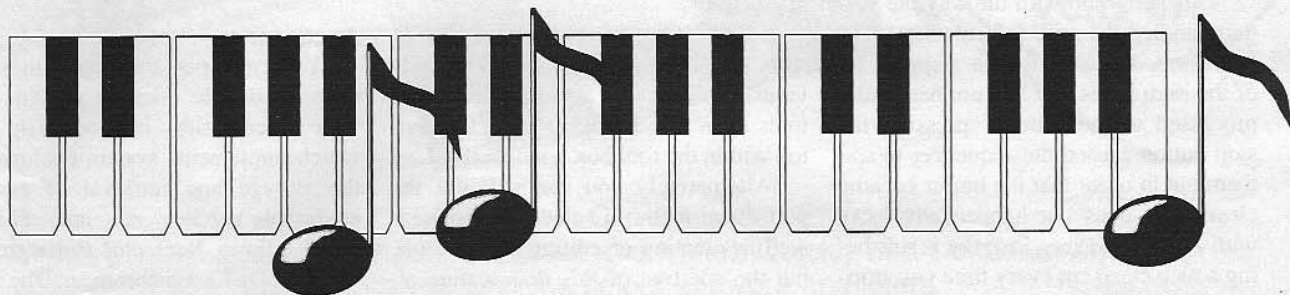
PageStream 2.1

Distributed by Computermate
(02) 457 8388
RRP \$399

Professional Page 2.0

Distributed by Dataflow
(02) 331 6153
RRP \$499

BARS AND PIPES PROFESSIONAL



► Blue Ribbon Bakery have taken *Bars and Pipes* a giant step closer to perfection with the release of a professional version, reviewed here by professional muso, Phil Rigger.

Those of you who have been fortunate enough to be using the *Bars and Pipes* sequencer from Blue Ribbon Bakery over the last six months or so will be more than pleased to know that the latest version, *Bars and Pipes Professional* will be available very shortly.

Edwin Huang from Rhythmic Bytes has had quite a bit to do with Blue Ribbon over the last year and was able to secure a beta test version for pre-release testing and review. An exact release date wasn't available at the time of deadline, but I have been advised by the Australian distributor, Dataflow, that it will be here mid-April.

The original *Bars and Pipes* was an innovative program. Of course it had features that were common to most professional level sequencers, but it also had many that were unique in both concept and implementation. The ability, for example, to set the key of the piece that you were writing, allowed you to utilize tools like the Counterpoint Tool which would provide you with a computer derived counterpoint to your written melody.

And there are many other tools unique to *Bars and Pipes* eg. Harmony, Echo, Delay (midi echo and midi delay), Arpeggi8, Glissando, Trill, Compressor etc. In fact, too many to list. On no other equitable sequencer are facilities available quite like these, with the list of available tools growing daily. As with most people who use professional level productivity software such as *Bars and Pipes*, I found several areas which required attention.

The A-B-A song construction, lack of notation/score printing, no system exclusive ability and the unwieldy "Clunk-Bang" of midi notes which occurred each time you hit the stop button while playing were less than satisfying. Accordingly, I was more than interested in viewing the proposed changes to the updated version. We were advised of some of these by Melissa Jordan-Gray who visited Australia last year during the Sound and Vision Show at the Sydney Showground.

It's worth mentioning here that Commodore Computers won stand of the show at Sound and Vision with the absolutely amazing stand that was built and designed by Mark McClelland and Associates. I was very pleased to have been involved with that project, with my partner and I providing all of the musical requirements during its existence. I

hope those of you who were able to attend were as impressed as we were. Well anyway, back to the issue at hand. Melissa advised us that there were quite a number of changes, and she was certainly correct.

What's New

The first thing that you notice when looking at the contents of the disk is that the new version of *Bars and Pipes* is markedly bigger than its predecessor. The original version was 364K in size, while the new version is 511K. *Bars & Pipes Pro* will work on a standard 1 Meg machine, but you will be limited in the size of the composition.

It is therefore preferable to run the new system on a machine with more ram. This will allow greater flexibility. Upon booting, you notice that there have been major changes made to the screen layout. The addition of moveable icons which call up a plethora of new functions, coupled with the ability to move the existing transport and track windows, makes for a fully customized sequencer layout. You can now design the layout that suits your needs.

You also notice the improvement in the graphics themselves, with the addition of shading on buttons and sliders, and many of the tools have completely new graphic interfaces. Nice implemen-

tation here.

Upon deciding on your new layout, you can give it a name and then save it so that next time you boot it up you can load your configuration immediately rather than having to change it every time you want to write a new piece. The previously mentioned 'Clunk-Bang' that occurred every time you hit the stop button has been rectified.

This had to do with the way the system handled the midi information being processed. Every time you stopped, all of the midi notes that had not been fully processed at the time of pressing the stop button caused the sequencer to spit them out in order that the buffer became clear. This does not happen any more with *Bars and Pipes Pro*, the result being a nice clean cut every time you stop.

Several changes are evident on the transport controls, with the addition of two more locate points (total of four) so that you may set up four different positions to which you can locate instantly. As well there is the addition of a "stop flag".

Wherever you position this flag, the sequencer will play up to that point and then stop automatically. There are also two buttons which allow you to choose half and three quarters of the selected tempo - useful for those of you who may not be great keyboard players and wish play in parts at a slower tempo in order to get it right and then swap back to normal tempo.

The track window, apart from the new graphics, remains essentially the same in function with the addition of the group controls. These were originally placed above the track window and of course allow you to select a group of tracks for the purposes of soloing, muting or editing. They are now positioned at the top left hand side of the track window and are represented as eight shaded buttons in a row.

An important feature that has been added to the track window is the ability to now not only place each track in play or record mode, but to place them in overdub or 'mix' mode as termed by Blue Ribbon. This means that once you

have recorded something into a track, you can then overdub something else over the top of it without destroying what you had first recorded. Excellent for things like pitch bend, aftertouch, modulation etc.

The 'moveable icons' previously mentioned provide the following functions:-

Tool Box

The new layout for the tool box allows you to not only to select tools previously loaded, but also to select other tools from disk by using the select button within the tool box window itself.

Alternatively you can still use the pull down menu to select new tools as well as creating or editing macro tools, but the addition of this new feature allows you to select tools with greater speed. The tools themselves as I had previously mentioned have had changes made to their interfaces, but this does not mean that the original tools cannot be used also. They can.

Metronome

This has been changed considerably. You can now select not only Midi, internal or visual metronomes (all three if you wish), but you can select whether the metronome gives you the lead in only or a continuous click throughout. As well you can change the resolution (1/4, 1/8, 1/16 etc), and the number of bars lead in (from 0 bars to 9 bars).

Accessories

You can open the accessories window by double clicking on this icon. New accessories include 'Big Sys' which implements system exclusive for the storage and retrieval of essential keyboard patches etc and Phantom which allows *Bars and Pipes* to react with the Dr.T's synchronizer, The Phantom. Forward thinking here. As well, existing accessories all work on the new version.

Set Flags

This is the window which allows



Workbench 2.0 look and feel, but still the same old familiar *Bars and Pipes* colour.

you to input the new flag positions for editing, auto-locate points, drop in drop out etc. The changes here are the addition of the two new locate pointers, and the new stop flag.

Clipboard

You can now open the clipboard from this icon and view the various clips you have saved. You can easily select a previously saved clip and use it as you normally would.

Tempo Palette

Apart from the new graphic interface, this remains the same as the previous Tempo Palette.

Song Construction

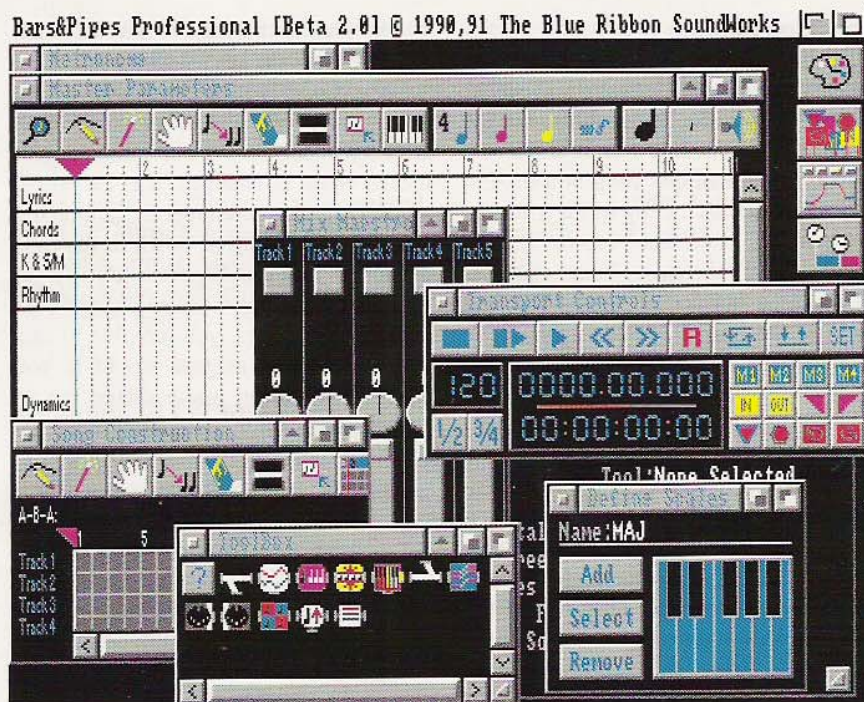
This is a totally new and much needed addition to *Bars and Pipes*. Upon opening, you are presented with a grid like edit window, containing a multitude of little boxes. Each of these boxes denotes 1 bar of music from your composition.

The tracks are listed down the left hand side and you have a group of edit icons across the top similar to the normal track edit window. The first thing that is apparent is that you are able to move bars within each track around and can easily change the order in which they play back.

But you are not just limited to the bars within each track solely, because you can move bars from track to track - eg. move bars from a bass track into a piano track if you wish.

Another example would be that if you have written a drums track of say eight bars, and upon playback you decide that the fifth bar would sound better as the seventh bar, you simply grab that bar, move it to a neutral position and move the seventh bar to the fifth bar.

Once you have done this you grab what was the fifth bar and drag it across to the seventh bar position. Voila! instant arrangement change. Using the move icon and bounding box icon, you can select any number of bars and move them easily to a new position. It really



More options, more windows, more gadgets, more menus - this program is BIG.

does work well.

Gone is the ungainly A-B-A song arrangement window that existed previously. You can define the various sections within this window, give them names, and move, copy and manipulate the entire arrangement from here. You are able to do this from an area just above the block grid where the section names are positioned. After defining the various sections of your song you can easily duplicate or move these sections at will. A very nice touch.

You also have the ability to zoom in and out here via two edit icons as you now can do inside the track edit window itself. It is no longer necessary to go to the pull down menus to do this, although that function still exists. Excellent implementation all round.

Tempo Map

Again a new implementation that is most welcome. Upon opening this window, you are presented with a grid display that indicates tempos from 0 to 250

beats per minute down the left hand side of the display. The bars of the song are displayed across the top from left to right. To instigate a tempo change, it is as simple as click on the grid to input a new tempo.

At this point you can choose between absolute, linear or exponential tempo changes as you could with the previous version. As you run the song, the cursor moves along from left to right and it is very easy to see when and where the desired tempo changes are occurring.

If you feel that you need to alter a particular tempo change in any way, you use the 'wand' icon by clicking on the change in question at which time a box appears with all of the relevant information necessary to alter that particular tempo change - a very fast and efficient way of manipulating your tempo map. Again you have the ability to zoom in and out in order that subtle and fine changes can be made.

Time Line Scoring

This is a wonderful addition. The window opens and shows a grid somewhat similar to the Tempo Map, but the function of this window is to allow you to load more than one song at a time to play back. Across the top of the grid you are given a 'time line' represented in minutes and seconds. Your track is shown as a horizontal block. You can click on the 'move' icon and just move your song backwards or forwards in time.

For example, if you want to start your song 15 seconds after you hit the play button, you simply move your song along to the 15 second marker and it will not commence until 15 seconds have passed. In addition, you can load other songs by simply clicking on the 'time line' after which you are presented with a load requester. Choose a song and when you hit 'OK', it will load your next song into the 'time line' at that position.

It is even possible to have songs overlapping each other which would enable you to write a fade at the end of the first song, and possibly fade up into the next. The possibilities start to get enormous.

Mix Maestro

If you had purchased Tool Box B which was an additional release of new tools, you will have used the volume and panning slider tools. The function of these tools was to provide a very easy yet powerful way of writing midi volume and panning changes into your tracks. They worked very well, but as with a number of the tools used with the previous version of *Bars and Pipes*, they were implemented in a somewhat messy way. Not so with Mix Maestro.

When you open the window you are presented with 16 faders and 16 pan pots represented by very smart looking graphics. Above each fader/panpot combination there is a blank space which leaps into life as soon as you hit play. A VU meter as you might find on a video or cassette player displays the velocity of each track which makes it very easy

to see what instrument is playing what and how hard the keys were struck.

Above that you are provided with a mute/lock button allowing you to operate each fader/panpot combination easily. To write in changes, it is as simple as clicking on to the fader or panpot and either moving it up or down in the case of the fader, or moving from left to right with the panpot to write in changes. As the name indicates, you are able to mix your tracks just as you would if you were operating an audio mixer but of course, your midi instrument must be able to respond to these commands.

You can also assign each to a different continuous controller of which there are 127 eg. modulation, sustain. These changes are written in while the song is playing - it is not necessary to put any of the tracks into record. After the changes have been made, you can hit play and sit back and watch your song being mixed and manipulated, because each fader/panpot plays back all of these changes graphically.

If you wish to alter a part of your mix, you simply click again on the appropriate fader/panpot and re-write the change. To top it off you can save the mix to the clipboard and then drop this mix in over a completely different song if you wish. Easily the best implementation of this kind of mix facility I have seen on any sequencer to date.

There are several changes to the track edit window. In fact some major changes. Firstly, you have the ability to zoom in and out here instead of going to the pull down menu. There is also an icon that allows you to playback what you are looking at in the edit window. If you have four bars displayed, it will play back the four bars. If you have eight bars displayed it will play the eight back to you.

A most necessary function, as you had to keep referring back to the transport controls in order to do this with the last version of *Bars and Pipes*. This meant that your pull down menus kept swapping between track menus and sequencer menus. This function now allows you to stay within the realms of

track edit. Using the display options while in track edit allows you to not only display the piano-roll editor or pseudo staff editor, but you can now display your track in musical notation. At last we have the ability to edit 'real' notation, not just little blocks.

You can also print from the track edit menu allowing you to print a single track. It's worth mentioning here that from the main menu, you can print your entire score. From here you are given the opportunity to see the print quality by displaying the proposed print in Hi-Res on the screen. This differs from the notation you will see in the track edit window, as this is subject to the zoom in/out command and is in the same resolution as the rest of the graphic display.

All other functions of the track edit window are as they were before with one exception. You now have the ability to swap from the piano roll/notation edit screen to a purely alpha numeric environment. All of the notes are displayed as you might see in something like Dr.T's KCS but with a far nicer graphic and edit interface.

Changes can be made and notes etc inserted quickly and easily. Highlighting events or groups of events for block editing is very fast and easy and across the top of the edit window you have a slider that lets you alter the value of the highlighted event by moving left or right.

Conclusion

This new version certainly places *Bars and Pipes* in the upper echelons of quality midi sequencers. It has already shown itself to be an incredibly powerful and innovative music processor and this new version makes it one of the best available. I'm sure it will continue to attract a larger group of users as more people come to know the power of this system. When you think that the first version was only released a little over a year ago, it makes you wonder how far Todor Fay and Melissa Jordon-Gray will take their product.



Pixsound

A 'MIDI Musical Art Interpreter.'

by Tom Ellard.

► The concept is intriguing - paint or digitise an image on the Amiga screen and *Pixsound* will translate the red, green and blue levels of its pixels into three noted chords. Run the mouse pointer around the picture and as you encounter changes in colour and brightness the chords progress to create music. You can view the overall form of the musical piece as a contour map and explore that map in free form.

The program comes as a single unprotected diskette and a tiny manual. *Pixsound* runs from a copy of the original disk or from your hard drive so long as two library files are installed in SYS:LIBS. These are copied automatically by the installation script supplied. Not all features are available on a 512K machine.

Double click on the program icon and *Pixsound* soon displays a title screen. You can start playing here, using the Amiga's internal sound generation. More preset screens are available from a "Gallery" menu, including the inevitable mandelbrots, some wavy psychedelia and a number of random generated boxes, wheels and stripes.

They all work well, having been designed with just the right colours and combinations to give instant gratification.

The internal sounds provided are tightly looped simple waveforms - sines, saw waves and harmonics, which are very responsive to mouse movements. You may load your own 8SVX samples but these should not be so long that they are unable to keep pace with the program.

If you have a MIDI adaptor and keyboard, *Pixsound* will send out note on and off information on one or more MIDI channels. I had difficulty with stuck notes on my MIDI keyboard until I disconnected the Amiga's MIDI IN port, cutting a feedback loop. There are 7 patch memories available, each selected by the corresponding number key.

Playing Pixsound

The overall characteristics of the composition are set from the keyboard. The function keys set the scale, which ranges from the usual Major and Minor to the more obscure Gypsy and Octatonic. Another fifty scales are offered by a Mode Grid gadget, some of which are unusual settings for special effects.

The bottom two rows of keys act as a piano keyboard, setting the pitch of the base note, the top row sets the harmonies of the other two voices.

Other functions are located in the middle keys. It's easy to wallop out endless Phillip Glass style sequences, by placing the mouse pointer on a patch of colour, turning on colour cycling and transposing the resulting cycles with the pitch and scale keys.

You may record your mouse movements and play them back in a loop. The pointer can also be set to wander the screen randomly or systematically from corner to corner.

A combination of colour cycling and these automated movements creates slightly repetitive, slightly changing music which is reminiscent of wind chimes. At any point you can hit

the Delete key and start recording the music as a SMUS or SEQ file, the latter suitable for Dr. T's KCS sequencer and compatibles. I would have preferred *Bars & Pipes'* SONG format but SMUS will do.

It is possible to grab an image generated by a multi-tasking program underneath the *Pixsound* screen. However when I booted up *Deluxe Paint III* and gave the appropriate command, *Pixsound* exploded and threw up a Guru-like alert which told me that *Hi Soft Basic* had just died, but not to worry. Interesting. The solution was to constrain *DPaint* to a NTSC area and the transfer went smoothly.

Grabbing any old image will bring little joy - you have to think of the screen as a musical contour, with islands of activity. But in general the visual to sonic analogue works well - a smooth and supple image makes for a smooth and supple melody. For a complete synthesis, set *Pixsound* to share the same screen as the paint program, and as you paint the music is created.

Summing Up

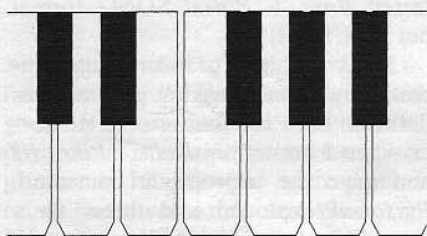
The manual is rudimentary, the bare minimum to get the program happening. Some features have no useful description, others don't seem to work. It is the sort of documentation that you see with shareware.

The program seems robust, apart from the problem with grabbing a PAL image. Although this is not a paint program, I have to criticise the lack of PAL support, which has been inexcusable since Workbench 1.2. When *Pixsound* did crash it unloaded

itself very elegantly, which is a tribute to the authors of the original Basic interpreter.

Do you need *Pixsound*? I can't see this program as a central and necessary part of your creative work. Like *M*, *Music Mouse* and other automated composition programs, *Pixsound* generates a pleasant, mindless duck waddle.

It will evoke Stockhausen and Glass, not Beethoven. But it is possible to load *Pixsound*'s melodies into a sequencer and cut them into something substantial. As a plaything it's greatly soothing and compares well to a round of *Tetris* or *Shanghai*.



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Speaking of Speakers...

by Phil Rigger

► So now you've bought your drum machine and your multi-timbrel keyboard to go with your Amiga and you're ready to start making some serious music, right? But wait, how will you hear it? Do you run a long cable into the family stereo...or perhaps use your little brother's ghetto blaster. Nah, try that one and you end up having your designer sports shoes stolen. There is a solution, or should I say several solutions.

Once upon a time, the ever faithful four track cassette or 'PortaStudio' reigned supreme in the demo home studio as the main tool for writing your songs. It still is a very useful and necessary item if you are to have your songs complete with vocals, guitar etc.

As we all know by now, computers became an integral part of song writing and composition. At one time, the only way you could complete a professional quality recording of a song was to write it on the piano or guitar, then have a band play it for you in a studio. This was a costly and sometimes frustrating exercise as many songwriters will attest.

Since that time synthesizers and drum machines have come a very long way. The ability to have your synth play a number of different parts and usually with very real drum sounds

has removed the need to record demos in a large studio, and has allowed excellent demos to be completed in your home studio.

This poses a new set of problems. How far do you go with your home system? Given you have your Amiga, multi-timbrel synths, drum machine and reverb or delay, do you look to setting up your studio with professional quality speakers and amp, or do you settle for the life threatening exercise of borrowing your brother's ghetto blaster?

Studio monitors can cost an arm and a leg, although some like the several of the small Tannoy speaker systems or the ubiquitous Yamaha NS10's are more than sufficient as pro quality studio monitors with prices that won't break your bank. (The Yamaha NS10's are used as near field monitors in just about every major recording studio in the world). Then of course comes the choice of an amplifier to drive them.

This is a very messy area as there are umpteen million amps to choose from with prices from just over a hundred dollars to well over four thousand. The solutions I mentioned earlier are a number of self powered 'micro monitors'. I recently had the opportunity to road test several models

from Roland and Kawai that most definitely provide an answer to the problem.

Interestingly, none of the speakers received showed frequency response figures in their specifications. I don't know whether they don't see this as important, and perhaps after hearing them it's not, but there are bound to be people asking this question. I looked at two models from each company.

Kawai

Kawai are relatively new to this area, at least in this country and they have two models on offer - the PM-102 Personal Monitor System and the KM20 Keyboard Monitor.

The PM-102 is a complete stereo speaker system which comes with two monitors and an input module. The speakers themselves are only 134 x 184 x 110mm with a neat curved front panel and bottom mount brackets. It's worth mentioning that these brackets are hinged so you can either leave them sitting at an angle, effectively creating a tilt table stand, or you can mount them on a wall or panel, or even mount them under a shelf - thoughtful design here.

They are connected to an input module that provides you with the

power switch, two sets of stereo inputs (two phono jacks and two RCA type inputs), an A/B switch for these inputs, a stereo/mono switch and of course a volume control. Rated at 10 watts per channel, each monitor contains an 80mm full range speaker.

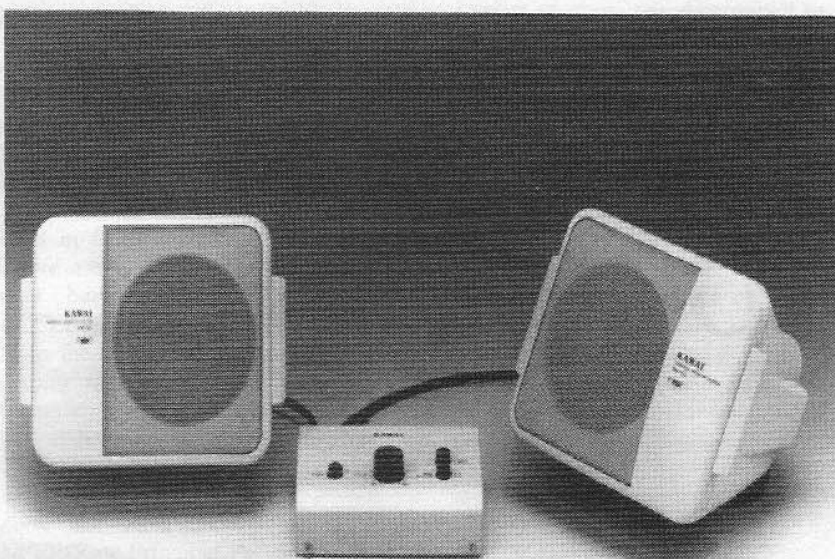
You are provided with a power supply or you can in fact run these little monsters by battery. I say little monsters because they certainly pack a punch. Don't let the size fool you - 10 watts is quoted, and 10 watts you get. The top end is fairly crisp and the bottom end is surprisingly good for a speaker system of this size.

My one and only complaint is that even though you are given two sets of inputs, you can only use one pair or the other which means you are limited to either two instruments plugged in, in mono, or just one stereo instrument. Surely four parallel inputs would not be a costly exercise given that they already exist on the unit. They still get the big thumbs up for value for money and sound quality.

The second system from Kawai is the KM-20 Keyboard Monitor. The KM-20 is sold as a single powered speaker, so in order to complete your system, two are necessary. Unlike the PM-102 this system can also double, believe it or not, as a micro PA system.

If you were doing a piano bar or restaurant gig this would more than suffice to get your vocals across. With a 12cm full range speaker they are rated at 20 watts each and are somewhat larger than the PM-102's - 242 x 170 x 162mm and weigh 3.2 Kgs. In fact, they are the largest of the speakers reviewed.

They come in black only and are very sleek in appearance. The front panel contains the power switch, a volume slider and a bass boost, while the back panel has two phono inputs, one of them being switchable between -5dbm to -15dbm. This of course allows you two inputs per speaker which would allow you to plug in say



a stereo synth and a stereo drum machine.

The threaded sockets provided enable mounting on a variety of brackets and stands, though a stand isn't necessary as they will sit on your desktop as would any other speaker system. Now let me tell you, the 20 watts per channel quoted is well on the money. This is more than enough power to have your neighbors running for the ear plugs especially when you depress the bass boost button - boom box hell!

There aren't too many times when you will want to crank them all the way up, maybe I'm underestimating some of the readers out there, but there is plenty of power to satisfy those of you who consider themselves techno punk heads.

Roland

The two systems from Roland are somewhat similar to those on offer from Kawai in that they have a micro system and a larger system and the intended market is the same. I believe there are several other models available but I wasn't able to get the product information in time for the

deadline. Keep reading future issues for further news.

The first system for review is a brand new release - the Roland CS-10 Stereo Micro Monitor. When it first arrived on my desk I opened the box and found something I wasn't expecting. Some of you may be familiar with the Roland CM range of sound modules. I reviewed this range several months ago in *Professional Amiga User*.

They include the CM32L LA module, CM32P PCM module and the CM64 which is a combination of both the CM32L and CM32P and they are intended for use with computer sequencing systems and are finished in the familiar cream and grey of just about all computers on the market today. Well, the CS-10 is part of this range and has the same physical dimensions of the sound modules except they have four large feet on which to sit.

The first thing that struck me when I pulled it out of the box was the similarity to the CM series except for the five centimetre speakers located on either side of the front panel. Five centimetres, I mean to

say, nice try guys but my el cheapo walkman speakers are bigger than these. What an odd looking little box.

Then I opened the owner's manual and immediately found why there are those rather strange looking feet on the box. Situated on the underside of the unit is a 12cm speaker facing down. The feet provide sufficient space between the unit and the desk or computer top for the bottom mounted speaker to work properly. This flat surface provides a baffle allowing even dispersion of the lower frequencies.

I dutifully plugged it in to my system and Kkablammm! I fell off my chair. This little dynamo is a killer. It is rated at five watts per channel with the front speakers handling the mid to upper frequency range and the large single speaker handling the bass. This is achieved by merging the crossover points at the bottom end into a mono signal, while leaving the mid to upper range in full stereo.

Which still allows you to write panning effects into your sequencer and maintain a stereo image. This is not such a strange idea, as most bottom heavy instruments such as bass and bass drum are centered in the stereo image. Monoing the bottom end is an often used effect in the recording of contemporary music.

The front panel contains a power switch, the two five centimetre speakers of course, a volume control and a tone control, while the back panel has both a pair of RCA inputs and outputs and a headphone socket which is something that doesn't exist on any of the other speaker systems.

My only complaint as with the Kawai PM-102 system is that surely two stereo pairs of inputs could easily be provided. They do after all exist on the Roland MA-12 speakers mentioned in the following paragraphs. Perhaps on a revised model?

The outputs allow you to connect a

cassette recorder so that you can record your track as well as listen to it play back. Because of its physical dimensions, (287 x 265 x 80mm) any of the other units in the CM series sit neatly on the top and Roland have given consideration to the environment in which it will be used.

A magnetically shielded design prevents the unit from interfering with CRT displays or damaging data stored on floppy. As well as sitting other CM series units on top, you can even place it under your computer monitor without fear of it distorting the display signal. Thoughtful designing here.

This is in the category of seeing and hearing is believing as it provides a compact yet very powerful means by which to listen to your music. Top marks, Roland.

The second system from Roland is the Boss MA-12 Micro Monitor. If you had gone to the Sound and Vision show held at the Sydney Showground some months ago, you may have seen these monitors being used all over the Commodore Computers stand. They are robust in construction and come in either black or white.

They were installed on the aircraft seats which faced each computer on display. The flight simulator never felt so realistic and of course the music and sampling demos were greatly enhanced by the obvious sound quality of the speakers.

Again Roland have looked at the requirements of both pro and amateur musos here. Like the Kawai KM-20's, the MA-12's are sold as separate units, so two would comprise a suitable stereo music system. Their dimensions are 132 x 218 x 165mm and each weighs 2.5kgs.

Rated at 10 watts each and if anything I would say that they are somewhat under rated at that. They certainly provide sufficient power to satisfy those who wish to assault the neighborhood eardrums. Each contains a 12cm full range speaker, with the front panel including not only power

on/off and volume, but high boost and low boost controls.

The biggest advantage with the MA-12 is that the back panel on each speaker has not one, not two but three inputs. When connecting your instruments up, this allows you to connect up to three stereo units.

It's worth mentioning here that there are two models of MA-12 - the standard MA-12 and the MA-12V. The essential difference is that the 'V' version stands for vocal, so that one of the inputs is set to accept microphone level (-45dbm). The other two inputs are set to -15dbm. It is still possible to connect an instrument to the microphone input, but just be sure to set the volume of that instrument way down so as not to cause input overload, then adjust up from there. The overall sound quality is excellent.

Of course anyone using a large keyboard system would undoubtedly be using a mixer in conjunction with any of the abovementioned speakers. People who are using fewer keyboards can benefit from the fact that they don't necessarily need a mixer straight away, but can plug directly into the speakers themselves.

Well there we have it. There's a new buzz phrase now - 'self powered'. All of the systems described above are well worth having a look at as they provide excellent answers to the problem of providing good sound when writing and composing your material.

It makes for better creative meandering and also helps to prevent your brother from stealing your designer sports shoes.

See ya next issue.

Spreadsheet

Comparison Guide



The is the second part of Don Sutton's exhaustive look at Amiga spreadsheets. This time he compares the more popular spreadsheets head to head.

► As mentioned in the intro to Spreadsheets in my previous article, Amiga Spreadsheet programs fall into two distinct camps, those that are clones of IBM programs and text based (*Lotus* style) plus those that support the Amiga interface, graphic based (Microsoft *Excel* style). I will cover the text based *VIP Professional* first followed by the semi text/graphic based *Superplan* and then the Graphic based *Maxiplan & Advantage*.

VIP Professional

VIP Professional is a fully featured *Lotus 1-2-3* ver. 1A clone. *Lotus 1-2-3* is a widely used and highly regarded spreadsheet for IBM and compatible computers running MS-DOS or PC-DOS.

Some criticisms can be levelled at

VIP Professional in that it is a port from the IBM world and does not support the mouse for moving around the screen. The screen can be pulled down to reveal the Workbench behind, but apart from that the mouse is of no further use.

Cursor movement is by use of the arrow keys. The cursor moves one cell at a time or if the shift key is held in combination, one screen at a time. There is also the goto key where you can specify a cell address or a named range. If the cell you call is already visible on screen the cursor will jump to it. If a cell reference or a named cell is not visible and is called it will be placed top left on the screen. The screen size is also identical to a *Lotus* screen on an IBM and is the same size as an NTSC screen on a PAL Amiga ie. uses 75% approx of the screen. To be fair the writers have tried to maintain faithful emulation of *Lotus 1-2-3*.

It will run *Lotus* version 1A files if you can convert them to Amiga disk format first (see a little later). To run

version 2 *Lotus* files they must first be converted to 1A with the .wks extension and any new version 2 commands must be removed or better still use the file conversion utility of *Lotus 1-2-3* to convert the file from version 2 to version 1A. *Lotus* version 2 has the file extension .wk1.

VIP Professional comes on a single disk without Workbench and is not copy protected though the manual states there is key disk protection. The manual is not terribly comprehensive. By this I mean that the examples of usage of a command do not truly reveal the scope of a command. *Lotus 1-2-3* also falls into this category (now you know why technical book shops are full of *Lotus 1-2-3* made easy books).

Further reading is listed in the manual requiring anyone wanting to run any serious worksheet to go fork out fifty or so dollars on a third party *Lotus* book. On the plus side the operational structure of the manual is straightforward and the use of a good size of type

can be commended. There is quite a number of worthwhile books written about various aspects of *Lotus*, not to mention the number of people with *Lotus* experience, which should be able to get oneself out of trouble.

One should try to obtain books relevant to version 1A of *Lotus* as there are a number of additional commands in version two of *Lotus* which will not work as I mentioned earlier.

Using VIP Professional

When *VIP Professional* is loaded, which takes a while, you are presented with a screen with a box in the middle. This box shows the current free memory and the memory allocated to *VIP Professional*. These will both be the same. (Worksheets are capable of being large, larger than the IBM exact equivalents of the above program.)

Naturally if you have only 512k of memory you will not be able to use that many of the columns and rows at once; nor if you are going to multitask. If you are going to multitask 512k is out of the question anyway). If you wish to let it hog all the memory simply click on OK otherwise set the memory to something less than maximum (at least 50k less) particularly if you want to run a CLI window.

If you have only a 512k machine you have no choice other than to let it have the lot. (*VIP Professional* is the same size as *Lotus* version 2 with 8192 rows and 256 columns).

I have 3megs of memory and limit the memory to about 500k as this is quite adequate for most purposes. This program is far too slow to be using large worksheets anyway.

A hint for those with 1meg or greater Amigas who wish to run some other task. Drag the icon for the other program you wish to run down near the bottom of the screen before loading *VIP Professional*. Reduce the memory that *VIP Professional* can use by enough to run the program. Once *VIP Professional* is up and running you can click on the icon clearly visible below the spreadsheet window. Another helpful hint is to turn off auto recalc as this will slow operation down considerably while it recalculates the worksheet after each and every entry.

There is online help available by pressing the F1 key as with *Lotus*.

The ESC key will back you out of each menu step while in a command where you do not wish to proceed. Command mode is obtained by pressing the "/" key and then by typing the first letter of the option or by moving the cursor over the desired option and pressing the RETURN key.

Until you are familiar with the commands the latter would be the one you would probably use as a single line explanation gives further information as each option is highlighted.

It does not take all that long to become familiar with the command structure as logical names are given to the commands. The @ (function) commands are divided into sections covering Database, Date, Financial, Logic, Mathematical, Statistical and Special functions. These commands are entered into a cell and act on data entered into a cell referenced by the formula.

A feature of *VIP Professional* which is better than some of the other spreadsheet programs is the ability to specify absolute and relative and semi absolute and relative cell addresses. Supposing you created a worksheet with a column of ten figures in column B and another in column C.

You now enter a formula into cell b12. This would work perfectly until you moved the cell b12 down one or more cells. The formula would then adjust its cell references down the same number as you move the formula ie. moving cell b12 down three cells would change the formula from @sum(b1.b10..c1.c10) to read @sum(b6.b13..c6.c13). This may be what you want but if all you wanted to do was move the cell b12 down to allow for the inclusion of a title or smarten up the presentation without disturbing the rest of the row this would require editing of the formula. If however you knew that the column references would not change you could do the following:- @sum(b\$1.b\$10..c\$1.c\$10).

This makes the rows absolute so that if the columns b and c were moved left or right together the formula would remain correct. If a dollar symbol was placed in front of the cell reference

@sum(b\$3.b\$10..c\$3.c\$10), then wherever the formula was copied or moved to, only those cells referenced in this formula would be acted upon. Similarly if the dollar symbol was placed in front of the column letter only then this would make the columns absolute. This feature makes creating worksheets a pleasure.

Using Macros

I have entered Macros on *VIP Professional* that I have been developing on *Lotus* and vice versa with out any problems. *VIP Professional* does not have a learn command for recording keystrokes to produce a Macro like *Superplan*, *Maxiplan* & *Advantage*. Macros are typed in as text labels ie. preceded by an "".

Macros to be invoked by the user are given a single character of the alphabet preceded by a "" for a name. It can be given any name if it is not to be a macro that is invoked by the user. If you wish to have an AUTO START MACRO the number 0 is used and the macro will execute as soon as the worksheet is loaded.

With *VIP Professional* as with *Lotus* non auto start Macro's are invoked by simultaneously pressing the ALT key and the letter assigned to the Macro. Macros can be very complex and can take over complete control of a worksheet/spreadsheet and are normally created for non-expert users so that they can use the spreadsheet without harming any part of a carefully set out spreadsheet.

Macros can also help the experienced user by taking over repetitive tasks or tasks which require a lot of use of the keyboard. I normally like to sit down and plan a Macro similar to writing a program say in Basic. In this respect writing a Macro is tougher as one does not have the choice of decision making commands available that you would have in a high level language, certainly not in this program. It can require a lot of ingenuity to make a macro bullet-proof.

In summary due to the slowness of this program it would be best to keep macros as simple as possible with not too much jumping about the screen as in particular scrolling is slow.

A book I can recommend (if you are interested in writing Macros on *VIP Professional* is specifically written for version 1A of *Lotus 123*) is "The Hidden Power of *Lotus 1-2-3*: Using Macros" written by Richard W. Ridington, Jr. and Mark M. Williams, published by Brady and available through Prentice-Hall.

Saving/Loading Files

There is no file requester with *VIP Professional* nor does the program create Icons. To alter path names you have to type /fd to change for the current session or /wddu to save this to the configuration file to make a path active at boot up time.

Files are shown in a row across the edit line as with *Lotus* and the user scrolls across this line with the cursor to reveal any files in excess of the number that will fit in one screen width.

VIP Professional limits you to the same file naming restrictions as MS-DOS ie. a maximum of eight characters, alphanumeric and no mathematical operatives such as the minus or plus sign mixed with numerics. An extension is added ".wks" to the file name for a worksheet ".prm" for an ASCII print file and ".gph" for a graph file as with *Lotus 1-2-3*.

You cannot enter your own extension as with *Lotus 1-2-3* version 2. Incidentally, files named in version 2 of *Lotus* which do not have any of the above extensions or the additional ".wk1" extension cannot be listed from a *Lotus* Menu.

I make use of this feature when writing Macros on *Lotus 1-2-3* ver.2.0 or higher to store file data so that nobody will load the file and destroy important data. Unfortunately this feature is not available in *VIP Professional*. It is possible, using a program like the PD program MSH for example, to load *Lotus* worksheets directly off 720k MS-DOS disks so you can work on them on your Amiga using *VIP Professional*. A portion of a worksheet may be saved or "printed" to a file. The significance of this is that part or parts of the worksheet may be used in a Wordprocessor document or even a Database file. *VIP Professional* allows the importation of an ASCII

(text) or Database file.

If you customize a worksheet using Macros you can save space on your disks by saving only that information that will change without saving all the other items such as column names or titles etc.

You do this by copying the data into a small portion of the worksheet and then giving it a name (select the entire data range when *VIP Professional* prompts for the range). You can then save this range from the File menu using the option Extract Value and then selecting your named range by typing the range name.

The resultant data can be later retrieved and loaded into the customized layout. In addition you can load portions of another spreadsheet to affect the results of the current worksheet. For example you may have a monthly balance sheet where the previous month's results can be imported to offset the current month's results.

Printing

Printing with *VIP Professional* is straightforward. There are a number of options using the "/p" menu to send output to the printer or disk and margins range and whether formulas or data are printed etc. The font and size of text is determined either by the Preference settings or by sending a setup string to the printer via the setup option in the print menu.

You will need your printer manual for the latter. There is no sideways printing option - this is of dubious value anyway. If the worksheet is larger than can fit on one page you will still have to arm yourself with a roll of selotape and scissors to stick the pages together to make a chart. When printing out a large worksheet, the columns that will fit the width of one page are printed first ie. down the worksheet, then the next lot of rows and so on. With *VIP Professional* as with most spreadsheet programs a specific range of the worksheet can be printed.

Slash Commands

VIP Professional commands are accessible by using the slash command "/". The menu is shown at the top of the screen two rows down. When the slash

key is pressed a series of options will be shown in a row. Each word can be highlighted by moving the cursor and a short explanation or list of further commands accessible by selecting this option appears on the line below the main menu.

Each option can be selected by either moving the cursor over the option to highlight it and then pressing return or by pressing the first capitalised letter. The more proficient one becomes the more the latter method is used. At any time you make a mistake the ESC key can be pressed causing the program to backup one level ie. to the previous selection. The number and scope of the commands are very wide making *VIP Professional* a very versatile program.

Help is available by pressing the F1 key. The RANGE OPTION is for formatting or erasing a portion of the worksheet. File is for saving, retrieving, extracting, combining and listing files. GRAPH handles the graphing types and creation of graphs. DATA covers the database features.

Data Entry

Data entry is simple. Just type the entry with the cursor on the appropriate cell and either press return or use one of the direction arrow keys to move to the next cell. The data will be automatically entered.

If you make a mistake such as entering some numbers and then some text, causing the program confusion as it does not know if it is a formula or not, it will beep at you and put the program into edit mode. If it is necessary to precede text with a number a text delimiter must be used such as "", "", "", "A", or "". These left justify, right justify, centre or repeat the text respectively in the cell. The other alternative to the above is select the "/RFT" (slash, Range, Format, Text) and highlight the text entry range. Cell widths are adjustable from 1 character wide to 72 wide.

Graphs

Graph types supported are: line, bar, XY, stacked bar and pie. Creating a graph is straightforward. A type is selected then the X range and up to six Y ranges then select view. Graphs can

be saved as a .gph file and must be printed to a printer with a separate provided program called GraphPrint. GraphPrint allows colour, size and font selection.

Superplan

This program comes with two disks, manual and a dongle which plugs into joystick port two if purchased at your friendly dealer. Disk one contains the program *Superplan* while the second disk contains demos. *Superplan* is the new name for *Logistix* with some added features and sad to say some deleted ones.

I obtained my copy by sending away my original *Logistix* program disk to Precision Software in the USA and waiting and waiting. What I received back six months later was a single disk with *Superplan* and a readme.doc.

No documentation to cover any new features other than a reference to the fact that *Superplan* supports Arexx (a macro programming language that can control and pass data between programs) and a further reference to some added macro commands to those of *Logistix* to control windows.

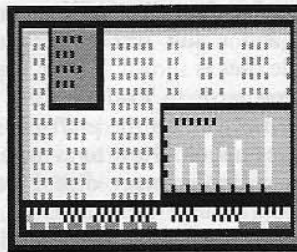
All information I have is via the *Logistix* manual so I don't know if there is anything covering the Arexx implementation other than what is in the readme file. If you obtain *Superplan* this way you do not need a Dongle to run it and, as with Superbase from the same company it will have your name, suburb and phone number on the credits screen at startup. While on the subject of screens the standard and custom versions display 23 lines while the extended interlaced version displays 55 lines (PAL). This is set by either altering your startup sequence if loading via the CLI or if loading from a workbench icon by altering the tool types via Info to any one of 3 options for the screen. These are SCREEN = WORKBENCH, SCREEN = CUSTOM & SCREEN = LACE.

I can see the obvious difference when you set the screen to LACE (interlace) but I could not tell the difference between Workbench and Custom. There is a further option that

can be set in the Tool Types and that is the number of bit planes. The options are from 1 - 4 with 2 being Monochrome.

Spreadsheets created on the standard version of *Logistix* can be read by *Superplan*. The version number of my copy is 1.24. An attempt has been made to support the Amiga Intuition interface but it has been done differently to other Amiga programs and I might add not very well. *Superplan* definitely requires 1meg or more of memory and does not multitask very well.

The program takes up a lot more room on disk, with insufficient room left for a full Workbench. In fact I have not been able to make a bootable disk as yet. If I wish to persist with this program I will probably have to assign help files or more probably the graph



printing option to the data disk or buy a hard disk drive. I did the latter.

Using Superplan

The screen display once the program has been loaded shows the usual letters for identifying columns and numbers for identifying rows. *Superplan* takes even longer than *Logistix* to load. Across the bottom of the window is a coloured line and displayed is the current status of the worksheet plus whatever is in the currently selected cell. Below the status line is the command line. This shows the goto prompt, recalc, and help prompts. If the slash key (/) is pressed a row of letters will be revealed. These letters are for the different options. *Superplan* shows a row of upper case letters A-X and Z and this is similar to *SuperCalc* for MS-DOS computers. This is a little unorthodox in that the

letters do not stand for obvious commands ie. copy is called replicate and output to the printer is via the O for output and not P for print as one would expect.

One can get used to this however. As you move the cursor along the different letters a summary of what is available by pressing either the letter or return is displayed. New are the pull down menus from the top of the screen and some icons at the bottom left.

These icons are (from left to right) Home, End (right bottom), the other gadgets have the following symbols which can be obtained by pressing these keys anyway so why have them (don't tell, me I know, you don't want to take your hand off the mouse)? I will put them into quotes to avoid confusion ":", "= graph, ":"=text, a gadget with a diamond symbol to zoom the window, "?"= help, "!"= recalc, followed on the right bottom with an OK & Cancel button. *Superplan* has its colours set in the Format option where you have to repeatedly press the space key to choose the colour. This discourages any regular option changes.

The help files are accessed via the F1 or Help Key and are identical to *Logistix* and therefore are in parts incorrect as they allude to features deleted from *Superplan*. There are scroll bars of the familiar Amiga type at the bottom and right hand sides for horizontal and vertical scroll respectively.

The window cannot be resized horizontally ie. the window cannot be made narrower but can be resized down to 2 rows of the spreadsheet plus the status and area for the gadgets, about 1 third of the screen. It is not possible to have more than one worksheet open at a time, maybe if you had heaps of memory and loaded the program several times?

A window can be opened on another area of the worksheet and in this respect is similar to *VIP Professional/Lotus* where a horizontal or vertical dividing line is placed on the screen. You can then select which window you wish the cursor to be in and can scroll one window independently or in unison. The mouse will activate the slash key options by clicking in the area and the

pointer can be used to select an option by clicking on the letter.

The pull down menus have the equivalent key presses displayed and when an option is selected displays these on the status line near the bottom of the screen as they would appear if one was to use the keyboard. It is this fact that makes me suspicious that they tacked some macros onto the program.

It is possible with *Superplan* as it was with *Logistix* to partition a worksheet at a selected column so that any columns to the right of this row are hidden and macros can be stored in this area preferably after debugging as it is difficult to gain access to this partitioned area.

The MOVE command has been changed from *Logistix*. It used to move the current row or column to another position. Now supports blocks or ranges. I consider this a worthwhile improvement and it is now better than the others. In moving a column or row the command is really a transpose command as it swaps the entire currently selected row/column with the move to row/column.

Saving

Superplan has no file requester and opens a near full screen window to display the list of current files. Now to the save bugs. Select "Save As" from the pull down menu which on "normal" Amiga software allows you to give a file a name whereas "Save" saves under the files existing name providing one has been given.

With this program the screen will display existing filenames and ask you to choose one and will not accept any name not shown on the screen #@!!#*. The ESC key has to be pressed to get out of this. Selecting save uses the current filename. To create a new file name one has to resort to the "/ss" filename "a" option. Portions of a worksheet can be saved. File types supported are *Superplan*, *Logistix*, 1-2-3, CSV (comma separated values), DIF (data interchange format) & Ashton Tate *dBase*.

Loading

As with saving *Superplan* has no file requester and opens a near full screen

window to display the list of current files. From here you may click on a file name to select it then press return. If you use the slash commands to load a file you will have to press F2 to obtain a list. Various formats are supported.

Types supported in addition to *Superplan* are: *Lotus 1-2-3* ver.1A, *Logistix*, Text, CSV (comma separated values), DIF (Data Interchange Format file) & Ashton-Tate *dBase* file. *Symphony* files can also be loaded with the *Lotus 1-2-3* option by changing the filename extension to wks. (You would need to download these files via the RS232 port or use MSH (a PD program that allows one to read IBM disks mentioned earlier) to use them with an unless you have an A2000 with a Bridgeboard or A1000 with SideCar.

You can also load *VIP Professional* files with the *Lotus* option. If you select the load option from the pull down menu only *Superplan* files may be loaded and a full screen directory of available files is shown. So far so good.

If you wish to load the files from another disk you set the prefix in the U or utilities option. Now to avoid saving data onto an incorrect disk I set the prefix to a volume name ie. Data_Disk: and sure enough the window fills up with the appropriate files whichever drive the disk is placed in.

Now here comes the snag, select a file by either clicking on it or by cursoring over it and pressing return. What will happen is the program will beep at you and tell you that the file cannot be found even though the name of it is staring at you on the screen. Then you notice on the status line that the prefix has been duplicated ie. Data_Disk:Data_Disk:Filename. I love this #@!!#*. I have found that one has to specify a drive by device name only ie. DF1: DF0: etc. and not a volume name.

Macros

Autos can be created which are like mini macros and are not shown on the worksheet though they are saved with the worksheet. They are handy for small jobs such as entering repetitive text, carrying out a series of key press instructions like formatting blocks of data etc. or for launching a macro. I

often use one to save the worksheet and save a backup as well with a CTRL/S key press.

Autos appear on the special menu called Auto, the rightmost pull down menu. Macros are entered into cells in the worksheet like *VIP Professional* only the commands are different. The choice of commands is much greater than *VIP Professional*.

Unfortunately the data entry commands do not disable the cursor so it is possible to accidentally move the cursor to a different cell before the return key is pressed resulting in the data being entered in the wrong cell.

AREXX is also supported as an alternative to using the inbuilt language. I don't know how effective this is as I have not yet purchased Arexx.

Printing

The Configure option is used to select the type of printer, paper size, style of print and sideways or horizontal printing. Sideways printing does not allow a choice of printing styles.

Superplan has its own printer drivers and supports a variety of plotters. Printers are selected from the /OC (slash O-output C-configure) menu selection and by repeatedly pressing the space key the available choice of printers will step by on the printer selected line.

You can if you wish use Preference printers but are limited in your choice of print options. There is a fairly good choice of printers though somewhat old fashioned and some more have been added. Atari printers have been added??? I have an Epson LQ-500 and by selecting LQ-1500 and A4 paper measurements have had no trouble in using any of the print options. It is possible to use non standard paper sizes by entering these sizes in the Output Configure mode. As with *Logistix*, *Superplan* has a sideways printing option which although limited to one print size works well. The normal (horizontal printing) allows several print sizes and three styles with each size, these being, plain, bold and italics.

Graphs

Superplan saves graphs on a specified portion of the worksheet which is unusual. A number of graph

types is allowed and any number that there is room for can be specified. Graph types available include Pie, Bar, Stacked Bar, Line, Step, Spread, Scatter & Gantt. The latter is used mainly for critical path analysis.

Graphs are fairly tedious to create however, you don't just select a range of data for say the Y axis and another range of data for the X axis as you do in *VIP Professional* for example. Instead special graph commands have to be entered into a range of cells in the same row that specify the type of graph, fonts, colour, size etc.

Printing Graphs

Graph printing is where this program shines. A choice of fonts and sizes is available. The fonts resemble those that would be printed by a plotter when a dump is made to a dot matrix printer. This remains unchanged from *Logistix*. A number of plotters are also supported.

Project Planning

Superplan has a good set of tools to do project planning and there are a few examples on the "Examples" disk. This would not be of benefit to the average user (unless they need to make up a roster for use of the bathroom) but could be an invaluable tool for those needing to organize staff or machines or shipping schedules etc.

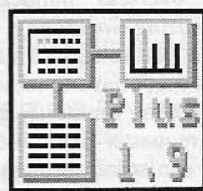
Maxiplan III

Recently I received an upgrade of *Maxiplan* from Intuitive Technologies. The version I received is version 3.6. The program now comes without workbench as the program has grown in size. Included is a small booklet describing the new features whilst on the disk is a ReadMe file containing a list of new features deleted. The list of new features as listed in the booklet are shown below with the features that are deleted marked.

- 1) Minimum recalculation (Deleted).
- 2) Print Preview. (uses a special font "Intuitive-6" to display on screen the rows and columns that will appear on a printout).
- 3) Logarithmic scales for line, bar

and XY charts (ie. graphs).

- 4) Interpolation line for XY charts.
- 5) Gantt charts (used in project planning a subject covered in the overview on spreadsheets).
- 6) Arbitrary text in charts.
- 7) Outline Mode.
- 8) DataView(tm) (a method of presenting a form on screen for entering data database style).
- 9) ARExx support.
- 10) 16 colour mode.
- 11) Word Charts (for presentations).
- 12) Storyboard Ranges (for making presentations including IFF backdrops and digitized sound Deleted).
- 13) Up to 50 charts per worksheet.
- 14) Default.Worksheet File (so you can set defaults for new worksheets).
- 15) ToolType parsing for *Maxiplan* program icon to allow you to setup defaults for number of colours and resolution.
- 16) Commandline parsing to allow you to specify number of colours and resolution when running from the CLI.



MaxiPlan Program

It is stated that there are a significant number of internal changes designed to make the program more efficient.

Using Maxiplan

Maxiplan version 1.9 comes on two disks (program and Examples/Utilities) and is not copy protected. The outside of the box states a 65000 * 65000 cell matrix which is nonsense and this is corrected in the manual to 32000 * 32000 but even this is unrealistic. A few months ago it was rumored that *Maxiplan* was to be renamed PlanIt and to be sold through B.E.S.T. of BEST Accountancy fame. This apparently happened in the USA with a version 2.0 release. Since then *Maxiplan* is being sold under the original name of *Maxiplan* as version 3.0 through another distributor in the USA and not

Oxxi as originally. I wrote to Intuitive Technologies, the writers of *Maxiplan*, and obtained version 3.6 in exchange for version 1.9, (the last commercial release via Oxxi). Unfortunately an update manual covers only those changes made from version 1.9.

The original manual supplied by Oxxi for release 1.9 leaves a lot to be desired as far as readability goes and one needs to experiment with the commands at times to get them to work.

As with *Superplan*, *Maxiplan* has an Amiga DOS interface. *Maxiplan* would easily be the most featured spreadsheet program available for the Amiga. It has an excellent intuitive interface and easily the best requesters which scroll the lists of names, files etc. on the fly. Requesters used in a lot of other programs have a scroll bar but the displayed list does not update until the mouse button is released.

Control of the program is, for the most part, by pull down menus. A number of the pull down menu options have both function key and keyboard equivalents. There are also a number of gadgets located at the top of the window below the border to select functions, delete the contents of the status line etc. (in fact if you were only entering numbers it would be possible to simply use the mouse).

These gadgets include a zoom to show a window giving a reduced view of the worksheet showing the entire worksheet with small squares to represent the cells. Different colours are used in this zoom mode to represent different types of data eg. text, formula & numeric data.

If you want to go to a particular area click the mouse pointer on a cell then back on the zoom gadget, which would have changed to read norm, and the worksheet will return to normal with the current view of your worksheet being the area you have selected.

Maxiplan has the ability to read *Lotus 1-2-3* files. The utility that was supplied with previous version/s of *Maxiplan* to allow conversion of *Lotus 1-2-3* files to *Maxiplan* format is now incorporated in *Maxiplan III* and accessible from the Project Menu.

This utility now has an option to save in *Lotus 1-2-3* format. My

experience of this feature is that it will load a *Lotus* file OK but when I tried to save, it Guru-ed and on a second occasion left an empty file on the disk and a third try saved a file that could not be read by any other program that in the past has been able to read *Lotus.wks* files eg. *Superplan* and *VIP Professional*.

In summary of the above paragraph - the only way to read a *Maxiplan* file from another spreadsheet is to print each column individually to a file and import each column as a text file into the appropriate column in the other program (tedious) unless you have Gold Disk's *Advantage* which will read *Maxiplan* files.

Other problems encountered so far: Arrow keys (cursor keys) cannot be used at all once a range is copied to the paste buffer. To reproduce this:

- a) Highlight a range with the mouse.
- b) Press F3 to copy to the paste buffer.
- c) Press the down arrow.

On mine, this produces the alert Software Error Halt all disk activity etc. and then Guru error No. 3. You can copy only 100 rows to the buffer making major moves tedious. With *Superplan* for example I have moved over 150 rows. OK so *Superplan* goes to sleep for a few minutes doing this but it doesn't fall over.

There are times when you cannot exit the initial screen without using three fingers or the On/Off switch. Trivial but nonetheless annoying is the column lettering with narrow columns. I have a worksheet that I have imported from *Superplan* after saving it in *Lotus* format (this feature works in *Superplan*). In this worksheet every second column is set to a width of 1 or 2 characters wide. This results in *Maxiplan* displaying the columns where two letters are required as follows. Should be AH, AI, AJ, AK, AL etc. Displays AK, AL, AM, AL, AN, AO, AN, AP, AQ, AP. Every alternate column, the wider ones, should at least show the correct lettering. It does display the correct column letters on the status line showing the current cursor/cell reference. Other spreadsheet programs display the last letter when reduced to a width of one character.

I have used the program a fair bit in keyboard/mouse control mode where it

has some good points as well as some drawbacks compared to the other spreadsheet programs covered.

An example is the titles function. With *Maxiplan* only the first few rows/columns of a worksheet can be set to permanently display whereas the *VIP Professional* and *Superplan* can have any number of visible rows/columns minus one and can be set on any part of the worksheet.

There is a minor bug with the freeze titles command and is as follows; If the title is set either horizontal or both and you scroll down the worksheet with the shift/down arrow combination then scroll back up with the shift/up arrow combination the cursor will end up in the frozen title area and there will be a duplication of the last couple of rows of the title below the original title area.

All the good points with *Maxiplan* are still there so all is not lost. It is just a pity that more extensive debugging is not carried out prior to release.

Some of the bugs have been there as far back as release 1.9 and have been reported in overseas publications noticeably *Amazing Computing*.

Okay so you're sick of hearing bad news. You don't have to remember formulas as clicking on the (f) gadget will bring up a requester like a file requester where you can scroll through them and select the one you want.

Maxiplan has the ability to create cell notes of several lines in length. An inbuilt editor makes creation of these notes easy. A cell which contains a note is signified by the cell indicator on the status line being Italic. By pressing the help key the note will display on a separate window. If the help key is pressed while the cursor is not in on one of these cells the normal online help file will be displayed.

Talking about help, the bottom choice of each menu is for help to be displayed on that particular menu (with the 1.9 release page numbers in the manual were given also for further reference).

There are inbuilt functions to speak the contents of a cell back to you, change colours of a cell or text style of the contents dependent on criteria set by the user. For example when your account is in arrears you can have the con-

tents displayed red and have a message spoken to you about getting your affairs in order before you go too much into debt.

Saving/Loading

As mentioned earlier, *Maxiplan* has an excellent file requester so saving is straightforward. *Maxiplan* does not support saving of a range of a worksheet other than printing a range to a file. There is a menu option for saving a *Lotus 1-2-3* worksheet but this does not mean it will convert a *Maxiplan* worksheet to *Lotus* format.

If a *Lotus* worksheet has been loaded in it will be called "Untitled" and must be saved using the Save 1-2-3 Worksheet option to preserve it as a 1-2-3 format file. A *Lotus 1-2-3* format worksheet can be saved as a *Maxiplan* file. Also note bugs with this mentioned earlier.

Printing

Maxiplan III now has a new menu located to the left of all the previous menus. The previous leftmost menu was for a simple calculator. This new printing menu allows the changing of most of the preferences settings to override the default settings such as characters per inch and line spacing. There is no sideways printing utility.

A file can be printed to a disk file and this allows a small section of the worksheet to be saved which could be imported into another program. Also new on *Maxiplan* is a print preview mode where a special font is used (if installed) to display on screen what you have selected that will print on each page, one page at a time. If the special font is not available then Topaz 8 will be used. *Maxiplan* now has the ability to insert page breaks in the worksheet so that a fresh page is ejected when it encounters a page break. These can be rows or columns. A nice feature as this prevents the printout being split in a non-logical column or row.

Graphics

A number of different graph types can be selected and more than one graph type can be assigned to the same set of data. Graphs can be resized and will redraw as soon as the mouse button is

released. Data can be changed in a cell and the graph/s will update to reflect the change.

Data and graphs can be viewed simultaneously. Graphs can also be saved as IFF pictures for tating up with say a paint program or TV-Text. The printing of graphs is controlled via preference settings.

Macros

Macros are written or recorded on separate Macrosheets. They can then be run on any worksheet and a library of macros can be built up. It is claimed that macros written for Microsoft *Excel* can also be used with *Maxiplan*.

A Macrosheet must be opened before a worksheet is opened. If you do not open a Macrosheet and try to run a Macro and do not select cancel when nothing appears in the requestor you will receive a visit from you know who. I would suggest that Macrosheets be either stored in a separate Macro drawer or be given a file name that shows that it is a Macrosheet.

An example would be Budget.MAC which would be opened and run on a worksheet called say Budget_90-91. There are over 100 Macro commands in *Maxiplan* so it has the ability to create very complex macros which can import and display IFF files for slide shows, create custom requesters, format, import & export all or portions of a worksheet under program control. About the only thing *Maxiplan* lacks is a custom menu feature for user decision making though there are ways around this.

Database

Maxiplan's database features are becoming more and more sophisticated where custom data entry screens can be created. All the usual database functions found in other spreadsheet programs are there plus the custom "DataView (tm)" mode. This DataView mode turns the worksheet into a true database interface with a custom menu.

The database fields, normally shown across the tops of the column of the selected range, are now shown down the screen. In this mode you can find, delete, add & select a new database or select criteria. You still have to define criteria ranges within the worksheet but

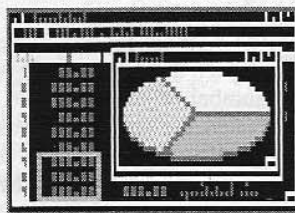
they are more easily accessed via DataView.

Project Planning

Maxiplan now has some project planning features using "Gantt" charts, a form of horizontal bar graph where parallel tasks with finishing and starting times can be displayed. See previous article in last issue for more details.

Advantage

This spreadsheet program falls into a category between *Maxiplan 500* and *Maxiplan Plus*. On the outside of the manual it states Home Office and I think it is aimed at this market. Also in the manual and advertising in overseas magazines at least, the size of the worksheets are given as 65000 rows * 65000 columns.



Advantage

A readme file on the program disk states this is incorrect and that it should be 32000 * 32000, which unless you have the memory would still be impossible to fill. This type of advertising is similar to advertising a car for normal road use where it can do 250kms/hr and where the roads are suitable for 160kms/hr maximum and then to try to get the opposition's market share by advertising that it can do 300kms/hr.

The *Advantage* comes on 2 disks and is not copy protected making for easy hard disk installation. On the second disk are examples and for users who have only 512k, two programs. One called Calc which is *Advantage* without the graphing features & the other is called Graph which again is *Advantage* but without the spreadsheet features ie. the graphing features only. A numeric coprocessor is supported mak-

ing for faster recalculation for those who have one.

Advantage is easy to use, very similar to *Maxiplan* and can in fact import *Maxiplan* files though not save them. It can import *Lotus 1-2-3* files (read *VIP Professional* directly & *Superplan* files saved with *Lotus* save option) and save them as *Lotus 1-2-3* files.

It even supports *Lotus 1-2-3* formulas and some text formatting. By the latter I mean that it will repeat a character to fill a cell if preceded by a "" for example.

This latter feature I find good as turning the grid option on can truncate text that would otherwise spill over into the next cell. To put an underline under some text it is only necessary to type in one cell underneath and then paste this into the next cell. If the column width is changed the underline will change with it. *Maxiplan* will show a cell not completely filled if the column were to be widened.

The title feature is not as good as *VIP Professional* or *Superplan* as it allows only one row/column or both to be frozen and it merely makes a copy of the first row on the currently visible screen.

This means that it is possible to scroll the worksheet past the title cell so that the cells it made a copy of will appear below the title. Other spreadsheet programs freeze the rows or column such that when the cursor reaches these the cursor stops and will not scroll past the frozen cells.

The cursor is a rectangle by default though you have the option of turning this into a solid block via a preferences option under the pull down menu. Personally I prefer the rectangle.

I had *Advantage* loaded in memory while working on this review using QED. I decided to load in a .wks file (*Lotus 1-2-3* format file). I then experimented with a couple of cell formats then closed the worksheet. *Advantage* asked if I really wanted to exit as it had been changed. I then selected continue to not save it and was rewarded with a Guru visit. This is the second in second days the first being when I tried to set a database range. Are *Maxiplan* and *Advantage* trying for a record of the most bugs per program? The bug I men-

tioned of not saving a changed *Lotus .wks* file is repeatable and Gurus the computer even if no other software is in memory.

If you are trying to do something important I would recommend SAVING EVERY TIME ANY MAJOR CHANGE IS TO BE MADE. You have been warned! You should do this with any program anyway (you do this don't you?).

The program does not multitask well with a number of programs. If there is no worksheet loaded and you click *Advantage* to the back and do something with another window then click *Advantage* to the front you will be left with a title bar for the *Advantage* window which does nothing.

Maxiplan can also do this as mentioned before. I could understand this if there was insufficient memory, however I was not using a large file and I have a total of 3megs of ram.

Back to the features. If the help key is pressed a list of F key actions will appear.

The cell note feature is easy to use however to use the extended cell note feature requires that you purchase another Gold Disk product called *Transcript* if you wish to view these ascii files when attached to a cell. You may not want to add further wordprocessors to your collection so I guess unless one has this program already this feature will not be used.

The standard cell note gives you one line of text on the line below the cell contents edit line. *Advantage* also has features to speak the contents or alter the style/colour of a cell dependent on a formula.

Something you can do with most spreadsheet programs but cannot be done with *Advantage* is make a cell entry a calculation, for example suppose you have two numbers which need to be multiplied ($12 * 25$). In most spreadsheet programs you could enter this literally as $12 * 25$ which would display the result of 300 in the cell, however with *Advantage* this must be entered as $SUM(12 * 25)$.

Advantage appears to have its "advantage" when it comes to functions as there are a number of functions in addition to those provided in most spread-

sheet programs which could be very useful. If there are not any functions to cover your specific need they can be defined by yourself and named. They will then appear in alphabetic order in the function requester along with the built in functions.

I will mention a few of the extra built in functions found in *Advantage*. There are functions to specifically link data between other worksheets ie. $LCELL(Budget,C10)$ would get the data from the "Budget" file in cell C10 and display this in the cell containing this formula. For this to work the file "Budget" must also be loaded into memory. $LINKDISK(Path/Filename,Cell)$ - similar to $LCELL$ however the worksheet does not have to be in memory. $NPER(Rate,Principal,Payment)$ - Calculates the number of payments to payoff a loan with current interest rate and payments. A number of string handling functions are included and used in conjunction with *Arexx* could make for a very powerful application.

There are a few more time functions than normal such as $SECONDS()$ which gives the number of seconds since midnight and when the worksheet was last recalculated. This latter function seems to me to be a waste of time as the cell display shows hours and minutes only even if the cell is widened.

Talking about cell widths, this can be adjusted down to less than a character wide using the mouse, and will not display anything, however using the Right Amiga key in combination with the letter "W" the widths can be set a specified number of characters wide. It would be better to have the cell widths jump character widths when using the mouse. When the width of the cell is adjusted down to 4 characters wide the column lettering disappears.

There is a **REPEAT** function which is handy if you wish to construct a Gantt chart. There is no Gantt chart provision within *Advantage* but it can be fudged by setting the column widths to one character wide for the area of the chart and using the "REPEAT(character,number or cell reference)" to make a graph line. An example $REPEAT("=",A2)$. This would, if this formula was entered in say C10, repeat the "=" starting at column C for the

number of characters determined by the numeric value in A2.

Another little quirk I discovered while trying the **IF** function to see if it would accept text as a result, was that it would not update the result if the cell that was part of the argument was changed. What I had was $=IF(A5>15,"Yes","No")$ and cell A5 contained 18. If I entered this formula in a cell it would show the correct result (Yes). If I changed the value in A5 to make the condition false ie 10 it would not show (No) unless I selected the cell containing the formula and clicked on the edit line then pressed return. The function worked OK and would update immediately if I substituted the number 1 for "Yes" and 0 for "No".

Saving

Mention was made already regarding *Lotus 1-2-3*. The file requester while adequate, is not as good as the one found in *Maxiplan*. There are no problems with saving of *Advantage* files. The program allows saving a portion of the worksheet to the clipboard device via the Edit menu or to a *DBase* file. I did not have time to try this.

Loading

Advantage can load three types of files, *Advantage*, *Lotus 1-2-3* & *Maxiplan*.

Again no problems. Text can be pasted to a worksheet from the Clipboard Device. Again I did not have time to try this.

Graphing

Graphing is relatively simple and straightforward, just select a data range then New Chart from the Commands menu and click on the icon for the desired type of graph. Standard Amiga fonts from a fonts directory are supported for inclusion in charts. Graphs can be saved to an *IFF* file or an *Aegis Draw* CAD file. Graph types supported are: line, bar, scatter, high/low bar, area, column, 3D column step, pie and 3D pie.

Macros

Advantage can record keystrokes and save them with the worksheet. There are no decision making commands so a macro cannot take over con-

trol of user input as with the other spreadsheet programs here. *Advantage* supports Arexx which would be the only way to get full control of a worksheet. There are a number of specialised Arexx commands.

Printing

Advantage uses Amiga preference settings but allows these to be overridden for sideways printing for example, and a file can be printed to disk.

Summary

VIP Professional

The most likely buyers of this program are those who use *Lotus 1-2-3* at work and/or have been on *Lotus* courses and don't have the time to learn another program. This program runs very slowly if a reasonable size worksheet is loaded and this can become frustrating at times. It displays its age having been written with the Amiga 1000 in mind (and for that matter emulating *Lotus 1-2-3*) as the top row of keys on the numeric keypad on my A-500 do not work.

I have not been able to determine if it will support a maths coprocessor (I suspect not). Maybe someone who has this program and a maths coprocessor can write in and let us know.

In summary this program is very easy to learn as the command structure is fairly straightforward. There is also a wealth of information for *Lotus 1-2-3* which can be utilized. Being fairly bug free is also a plus (it is possible to have the program freeze on odd occasions). To improve this program things that would be needed are support of the Amiga's Intuition interface and possibly the inclusion of the extra commands found in version 2 of *Lotus 1-2-3*. *VIP Professional* is therefore a spreadsheet program that is the bare minimum for Amiga users in the way of features if serious work is to be done.

Superplan

The manufacturers of this program would be well advised to beg borrow or steal a copy of *MaxiPlan Plus* to see how a real Amiga spreadsheet works in-

sofar as supporting Intuition (Amiga's graphic interface) goes. By the same token Intuitive Technologies (the manufacturer of *Maxiplan*) would be well advised to look at this one to see how a greater than 90% bug free program is created. Though there are a few bugs I have not had one that causes any loss of data (very important) and all except one have a workaround ie. use the slash commands and not the pull down mouse menu for "Save As" for example and don't release the right mouse button above the menu bar above the Auto menu when a worksheet has not been loaded.

Superplan supports the greatest number of file types with the exception of IFF for graphs so it should not be too difficult to get data from some other program or export it to another program. It has enough features to satisfy most serious business users and some unique ones such as the time planning critical path analysis which normally requires a separate program such as *SuperProject* in the IBM world (in the PD arena there is a program called *AmiGantt* for the Amiga but not as fully featured as *SuperProject*).

It has a slightly weird command structure but is one that you can get used to. This program is what I use where reliability is needed even though I would much prefer to use *Maxiplan*.

Maxiplan

An excellent program for versatility and features, marred by poor bug testing prior to release and especially since some of these bugs have been with several versions of the program. If you intend to use this program for serious work REGULARLY save your work. I have found it much more reliable if you do not try to multitask any other application.

In normal use, other than copying or moving ranges larger than 100 rows, it is very fast in comparison to *VIP Professional* or *Superplan*. I wish all Amiga programs would adopt *Maxiplan's* file requester. The menu structure is sound and if you don't wish to use the mouse there are function key and Amiga key/letter combinations for the most used commands.

Maxiplan has the most comprehen-

sive range of macro commands the lack of a user defined menu feature being the only negative point.

Gold Disk Advantage

If Gold Disk eliminate the bugs, before Intuitive Technologies eliminate the bugs in *Maxiplan* they will have a winner. I think *Maxiplan* has slightly fewer bugs. *Advantage* is the only spreadsheet for the Amiga supporting minimum recalc where only those cell affected by a change are recalculated though *Maxiplan* may reintroduce this feature. If Commodore, as rumored, supply Arexx with WB 2.0 for the Amiga models other than the 3000, then it could be a contender in the business market as well as the home office.

Maxiplan and *Superplan* also support Arexx however more info is given in the manual for *Advantage* than either *Superplan* or *Maxiplan*. It could also be argued that *Superplan* and *Maxiplan* have a good enough macro language of its own.

Conclusion

Maxiplan has the most professional look and feel and is easy to use. While *Advantage* is also easy to use but looks a little el-cheapo. *Superplan* has rather a messy menu setup but is also one of the most reliable. *VIP Professional* is the most reliable but lacks features and speed.

□



Wordperfect to Postscript

**Quality output is possible from Word Perfect
- all it needs is the right preparation**

by Frank Keighley, Desktop Utilities

► Anyone who has drafted a document in *WordPerfect* until it looked good on screen, and then taken it to be printed on a PostScript device (laser printer or Imagesetter) with proportional fonts, will know that What You See is Not What You Get. Common problems with files output for the first time to PostScript with *WordPerfect* include:

- Columns of figures or tables are out of alignment
- Text only uses 2/3 of the page width, or is thinly spread across the page
- When the margins and pitch are reset, line breaks and spacings are out of position
- Page breaks have shifted, leaving sections with blank return codes serving no purpose
- Alternate left and right page numbering doesn't line up with text margins
- Footnotes are set in narrower margins than the text, if the text margins have been reset.

This short article examines some causes and some solutions.

Proportional Print

If you set Format-Print-Pitch/Font to 15-Pitch Proportional Font 1, you'll find you can fit about 90 to 100 characters to a line (e.g. set margins to 15 and 110). Only one font can be used in

a document, but the pitch (characters per inch) can be varied. The font, though, will determine which pitch can reasonably be used.

Both the font family (Times, Helvetica etc) and size (12-Point, 18-Point etc) of the font help to determine this. If you select 11-Point Helvetica, the pitch should be adjusted to about 14, because otherwise some lines will run words together. Standard Times (Font 1) works well on 15 pitch, unless upper case lettering is used extensively, in which case 12-Pitch may be a better idea. If multiple fonts are needed, use *Professional Page* or *PageStream*.

Margins must be set according to the pitch selected. A right margin of 115 will fit comfortably on an A4 page in 15-Pitch, but not in 12-Pitch. If more than one pitch setting is to be used, margins will have to be set accordingly.

Eighty characters in 12-pitch occupies more space than 80 characters in 15-pitch. If the main text is in 15-pitch and some sections have to be set in 12-pitch to give adequate spacing between words, then the character value of both left and right margin will need to be reset.

For example, a left margin of 15 in 15-pitch will appear at the same page position as a left margin of 12 in 12-pitch. A right margin of 105 in 15-

pitch corresponds to a right margin of 84 in 12-pitch. To calculate the new margin equivalent, multiply the current margin setting by the new pitch setting and divide the result by the current pitch setting.

Printing

A PostScript laser driver has to be selected at the time of PostScript output, and at some time the Printer Control programme will probably take you to its Apple LaserWriter definition, and then return you to whichever laser was selected for the last question in setting up the printer definition.

You can select multiple drivers, and if you make one Landscape and the other Portrait, you can print those side-on pages with long tables of column text as well as normal pages. This doesn't affect document creation as the printer driver is selected at the time of output on the laser.

Check that the right driver is selected. Each time the Printer Control window is closed and restarted, it returns to its saved defaults because it fetches these from disk again. The default printer driver is the "A" driver.

Positioning Text on a Line - Spaces vs. Tabs

Tabs, Hard Returns and Hard Pages are the way to insert these. Multiple spaces are not reliable because

their value depends on the text around them.

In Postscript output, each tab takes you to a fixed point along a line, corresponding to the character position in a fixed, non-proportional font. Because the surrounding text is proportional, text does not line up as it appears on the screen.

However, if successive lines are given the same tab treatment, text can be set in columns for a table. This is one way to line up a table. (The other is to use the Columns facility.) Note that tabs only apply below where they are set. They have no effect on the text above them and they can also be re-set at several locations in a document.

For tables, justification should be off (see example below). It can be switched back on after the table. Justification is set from the Format/Print menu, and is a toggle switch (changes its state between on/off each time it is selected).

New lines, where needed (as for a new paragraph or the new line of a listing), should not be generated by inserting spaces or tabs, but by pressing the Return key. All other methods lead to trouble if margins are changed.

Similarly, to make a page break at a particular point, hold the CTRL key and press RETURN to set a hard page break. Don't use extra RETURN codes, this could affect pagination if you change the number of lines of text in the document, by adjusting margins or editing.

If you are using a proportional fonts, such as Times, in the printout Proportional should be selected in the Format-Print-Pitch/Font requester; otherwise text will be treated as if they were monospaced.

Indented Paragraphs

Don't use Returns and Tabs to set indented paragraphs. Instead, just press the function key F4 to start an indented paragraph or block of text. (Press Tab and then F4, or F4 twice, to indent the paragraph to the second tab stop.)

To create a hanging indent, type the paragraph indicator (asterisk, bullet, letter, number etc) and then F4 to

indent everything following it. Then, when you edit the paragraph, WP will automatically reflow the text, maintaining the indented format.

Bullets

To create a "bullet", as commonly used to introduce paragraphs or lists of points, press ALT-8 (on Amiga systems). A dot will appear at about half character height - like a suspended full stop.

Columns of Figures

When setting figures in columns, the problem is how to get the decimal points to line up. In PostScript output, spacing the figures until it looks right on screen definitely won't work.

Instead, use the Tab-Align function in the Format menu. Either select it as you are about to type the figure, or place the cursor on the first digit of a figure already typed, then select the option from the menu.

The alternative is to use *WordPerfect's* "Math columns" - an idea worth exploring if you think you may wish to perform calculations on the figures, because it provides a basic spreadsheet facility (the operators +, -, *, / can be used in formulae).

Line Breaks and Page Breaks

Word wrap and the default insert mode of most word processors encourage some operators to use spaces and Tabs to force line breaks, and extra Returns to force page breaks. This practice is perilous, because any editing is likely to cause unexpected changes in the format, so that the line breaks are no longer where they were "put", and page breaks no longer conform to the original plan.

Worse still, where multiple Returns have been placed to force a page break, and then other changes have been made (such as deletions or additions above the page break, or changes in margin settings), this will usually result in a large gap in the text for no apparent reason part of the way through a page.

If fixed line breaks are required, as for a list of points, Returns should be inserted. The same should be done to

create line spaces between paragraphs (one to take the cursor to a new line, then one for each line space). These layout codes will be unaffected by editing carried out at points above them in the document.

To force a new page, simply hold down the CTRL key while pressing Return (once for each page break required). A dotted line will appear which represents the page break.

Before saving the final version of the document, scroll through the document using CTRL-cursor key combination, stopping at each page break and using the up-cursor once to check the page length. Sometimes, editing after hard pages have been inserted results in a very short page immediately before the forced page break.

It may then be necessary to delete the page break (using Delete or Backspace key in the normal way), and possibly to re-insert one further down. Of course, this may then affect page breaks below that, so it is worth checking to the end of the current document after such a change.

Large Documents

Many documents presented for laser printing are quite long. It is a good idea to break such documents up into several files. For books and theses, this is a simply a matter of placing each chapter in a separate file. If there is a substantial bibliography, it also should be in a separate file.

Page numbering can be handled (for files other than the first one) by using the Format/Page/New Page Number option in order to start each file from the right page number. After editing any file, this number may need to be adjusted for subsequent files. It is best to check this after the final editing, so that it doesn't have to be done at the output bureau.

The main advantage of splitting large documents into several files is speed. Word processing operations take longer as files become larger. A ten chapter book will obviously be much faster to edit in ten separate files than it will if it is all placed in a single file.

There is also less risk of losing a

Tutorial

large amount of work in a system crash, power failure, or disk failure. Programs such as *Disksalv* (an excellent public domain utility available from most user groups and BBS's including the one at Desktop Utilities) will usually recover most files from a corrupt disk, even if they can't recover them all.

Of course, it is vital as well to have at least one backup of all major work files. You owe it to yourself!

View Codes

Sometimes, just by looking at the text displayed on screen, you can't fathom why something is happening with the document. It's probably time to go to the Edit menu and select "Reveal Codes". This will show where TAB, RETURN, MARGIN SET, HEADER etc happen.

You can use Backspace and Delete and the cursor keys and cursor key combinations (eg SHIFT-cursor, CTRL-cursor) in the Reveal Codes window, but the mouse cannot be used except to close the window. Exit from Reveal Codes by pressing Return or selecting the Close gadget.

Disappearing Files

When calling up a file, *WordPerfect* normally offers you a requester where you type in a path and the file name. Sometimes, you do this and it can't find the file, yet it appears in the List Files window or the new file requester in Version 4.1.11.

This problem arises when the user has inadvertently typed a space before the file name when last saving it. The same thing may result in two apparently identical files being listed. In the List Files window, or the new file requester, one of them will usually appear one character space to the right of the other.



Switching columns on

The solution is to delete the outdated file, if any, and to rename the current version of the file (*WordPerfect* has a Rename option in List Files), deleting the space from the beginning of the file name.

Page Numbering

Margins for page numbering on alternate sides of the page must be set separately from text margins when using proportional print. Use the Format - Page - Page # Column Position command.

The correct equivalent fixed-spaced position for the page number can be calculated from the pitch setting used in the main text (12 pitch = 12 characters per inch, so a setting of 84 will give a right margin at seven inches).

Widows/Orphans

This is not restricted to PostScript, but it can be useful to set this option to "on" to avoid stray single lines at tops and bottoms of pages. Headings and dot-points (preceded and/or followed by Return codes) are not catered for by this command. Use Conditional End of Page for these, or check for them manually, inserting forced page breaks where necessary.

Footnotes

Reformat these after any changes to the margins in the document, to bring the footnotes into line with them. There are two ways of doing this.

Run the spell-checker's word-count option on the document, or display each footnote in its editing window, then exit the editing window again. Both of these actions will reset the footnote margins to those of the main text.



Search/replace option

Conclusion

From time to time, we hear that *WordPerfect* is planning to release Version 5 or Version 6 for the Amiga. Our users unanimously agree that a preview facility, so that layout can be verified on screen before being sent for PostScript output, is the most-needed improvement to *WordPerfect*.

This is not the same as WYSIWYG, and does not imply the same costs in speed of operation and complexity of the program.

It would be nice if the next version also included basic layout facilities such as the ability to use multiple fonts, create borders for tables or blocks of text, and insert illustrations. (A crude mechanism for creating borders does exist, with the emphasis being on "crude".)

Some of the above information is contained in one form or another in the manual. It is a pity that, even when I know it is there, it is buried so effectively, and scattered so thoroughly throughout the 600 page ringbinder, that it was easier for me to write a PostScript output guide for my users rather than referring them to the manual.

A further requirement, then, is an improved layout in the manual, to provide better support for users with particular requirements such as PostScript output. As for looking up PostScript in the index, it isn't even mentioned!

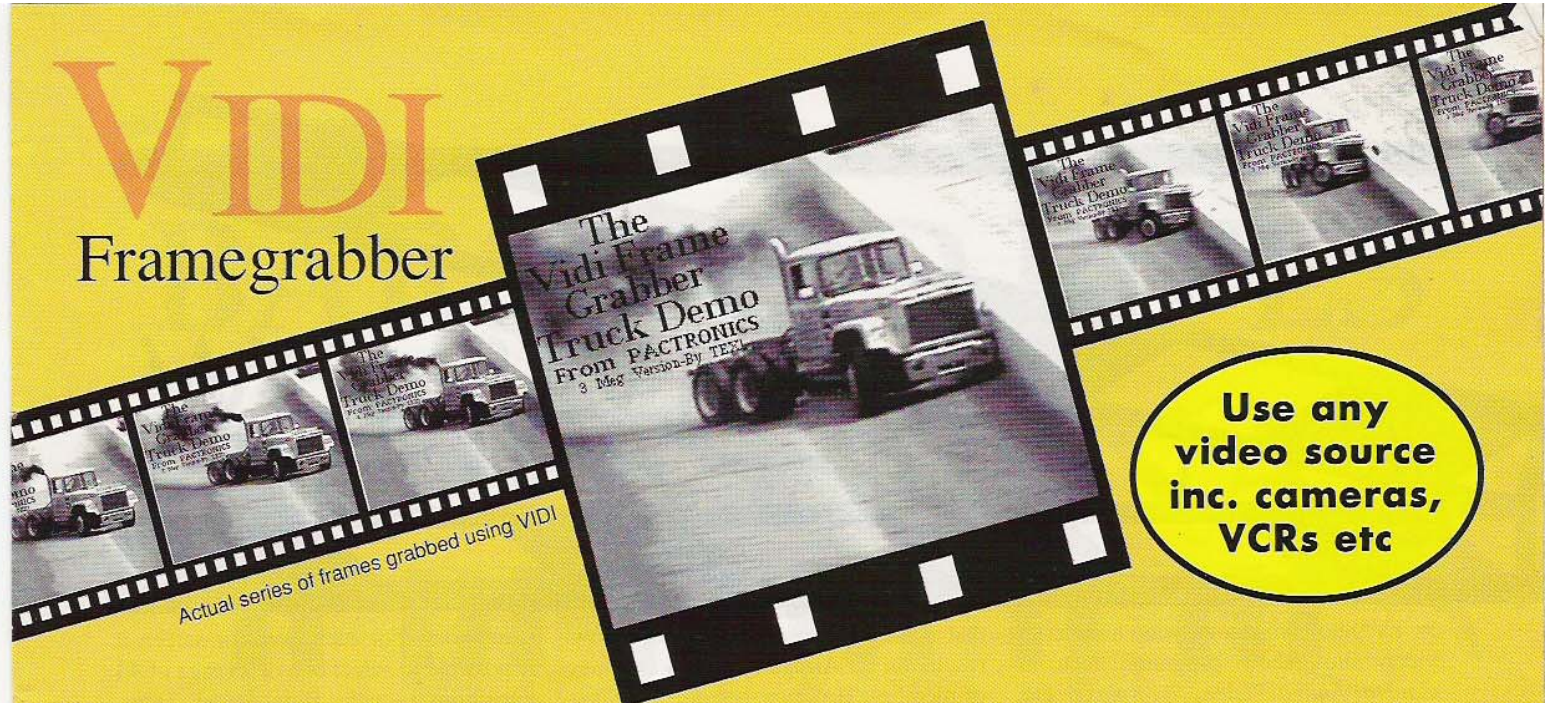
Yet *WordPerfect* is one of the few Amiga word-processors which provides solid PostScript output facilities. The documentation just isn't good enough - and my attempts to persuade WordPerfect Pacific to provide some help articles in its newsletter have, so far, fallen on deaf ears.



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TV*SHOW

by George Kimpton

► TV*Show joins a growing number of video slide show programs such as *CanDo*, *Amiga Vision*, *Showmaker* etc. currently available for the Amiga which can be used as slide presentation shows or video titling programs.

As is typical of slide shows, all material must be prepared elsewhere, either in a paint program or other graphics or text programs. No modification to individual objects, screens etc. is possible - only manipulation or transitions. It's companion programs are *TV Text* or *TV Text Professional*.

The program comes with two disks, program and art, and a substantial manual and the program itself is unprotected, avoiding the annoyance of having to keep the manual handy to enter a password every time you crash the program. I can appreciate the programmer's need to protect his or her work but I find this form of protection most annoying especially when you are familiar with the program and have it mounted on a hard disk. Instructions are included for installation on a hard disk.

System Limitations

No details of system requirements are mentioned in the manual but information is provided on minimisation or optimisation of memory usage. The section "Memory Multi-tasking & TV Show" at the end of the manual goes to great lengths to explain how the various screen formats fit together and how they affect performance.

I have it on good authority though,

that some schools have produced good results on an Amiga 500 with one meg of memory. However because *TV Show* pre-loads screens before running, the more memory the better I would say. A hard disk would also be worthwhile to speed things up for large productions.

Tutorials

It is indeed a new experience to find a program which puts on a talking tutorial which leads you through the setting up of a show. The voice takes some getting used to and I am sure there is a limit to how many times you could listen to it without wanting to do terrible things to it.

We make much of the fact that the Amiga has a user friendly interface and in this case you certainly could almost do without the manual after listening to and watching the tutorial. If you prefer to read your tutorials, the manual certainly provides you with all you need, taking you through the procedures step by step.

Really it is a very easy program to use once you become familiar with your way around the various menus and requesters. Everything is point and click except of course typing in the names of files etc. in requesters. Even the transition speeds, dwells and delays are adjusted by mouse click or movement.

Programming

TV Show allows the programming of pics, as operative screens or backgrounds, objects (brushes programmed to move over backgrounds) and

animations. For each event or screen it is possible to select one of a range of 44 transitions which allow cuts, fades, wipes and push or pull etc..

Some transitions are restricted to either screen or object movements and are ghosted when not available for that selected item. The speed of these transitions is independently adjustable. The normal reaction sometimes is to use reasonably fast transitions to get rid of jerkiness, as I did initially in testing this program, but sometimes slow is best.

Action delays and/or dwells are also adjustable. Experimentation is very much the order of the day with these adjustments to create the best effects.

The location where an object finally comes to rest on the background is determined with the mouse. Methods of transition, arrival and departure, is selected from the transition screen and the speed, dwell and delay are also preset.

Paint Modes and Palettes

One point to note, it seems possible to mix HAM (*Digi-View* or *Digi-Paint*) with *DeLuxe Paint* without any problems as far as I could see although the manual warns against mixing resolutions and palettes without due care.

In a test run I took a digitized TV pic with *Digi-View* touched it up with *Digi Paint* and used it as a background. I then took a brush produced with *DPaint* and used it as an object to independently transition over the HAM background. Admittedly in retrospect

both were probably Low-Res but no palette problems were evident.

Appendix Page A-4 lists a number of possible performance limitations but mainly with regard to transitions. One minor annoyance was the fact that I could not seem to get the object to appear over the background without at least some delay no matter what I tried. This would not matter if speed or time limits were not the essence of the scene.

I had no other problems with these object transitions and there was no interaction between the background palette and that of the object as can occur in some programs although the manual does warn you to be careful. The need to match palettes can be very annoying at times. To not do so can also produce devastating results.

While we are on the subject, colour cycling of scenes or objects is permitted for special effects. The event to be cycled must have been saved in *DPaint* or other with colour cycling switched on for this to work.

Sound Tracks

Life and interest can be added by the use of sound effects or speech. The use of the speech module is well demonstrated in the talking tutorial included in the boot up.

While the computer voice does not sound very natural it is adjustable to some extent and I have found that if you take a little trouble and spell the text file phonetically the speech is more easily understood. All text files must be recorded as ASCII format. Imbedded codes can play havoc with voice.

A word of warning here, both graphics and sound make heavy demands on the computer's hardware and this competition can cause the sound to suffer as the Amiga gives priority to graphics. Care should be taken to use simple graphics with speech. I didn't try it but the interaction could be a real problem with animations.

The sex and expression of the voice is selectable along with the speed of

delivery and volume level. As in all the other set-up screens it is possible check and the monitor the action and settings by clicking on the ear icon. In visual events an eye icon is used for previewing.

Sound effects (SFX) must be stored as IFF files and can be produced by most sound digitizers. The size of the file you can play is limited only by the size of the RAM available. Speed and volume are adjustable but unless a time delay is built in to the sound recording, the sound starts immediately the event appears.

Animations

Animations can be programmed as part of the show. I experimented with several *DPaint* animations with no problems. This is where a hard disk comes in handy and speeds up pre-loading of the events. Loading occurs each time you start the show unless you program it to loop as for continuous shows.

The animations must conform to the IFF Anim 5 standard which is no problem for *DPaint III* but could cause some problems in *Sculpt* and others. This would need checking out. Animations should also be looping animations for smooth operation in *TV Show*. Final anim frames can be frozen for effect by adjusting the loops and delays.

Sound can be added to the animations and the actual frame the sound occurs for can be specified. It is also possible to apply object transitions to the last frame of an animation for a special effect. The last frame is held while the transition occurs. Similarly the last frame can be held while some tune or sound effect is played.

Apart from preparing your script and the individuals events it is possible through the Editing screen to move and modify the script. Apart from the usual delete, insert or move facilities it is also possible to set up looping scripts and key controls through the Event screen.

Special Commands

Looping, as mentioned before, allows continuous running of the show where needed. The loop back location can be varied to bypass the start-up sequence or other events. Key events allow you to key special script events by pressing the Function keys. This means that the main script may be fairly lengthy but special segments may be of interest to specific groups of viewers and keyed accordingly.

By setting the "F" keys for definitive events it is possible to shift viewing to that area of the script of particular interest to the viewer without the need to watch the whole script or show. The command MOVE operates like the old cut and paste allowing you to lift out and move events or segments to a new location in the script.

It may be that at some time you will find a need to add one or more scripts together for a more complex presentation. This is accomplished by using the MERGE instruction whereby you APPEND a second script to the end of the first or INSERT it where needed. Once merged you can move, delete events or whatever for the final presentation.

Final scripts can then be printed out for reference or modification. Once you are satisfied with your show you can use an additional module called SCRIPTMOVER to collect and transfer all necessary files to another disk for showing.

While this program would not fit into the professional classification it is still capable of quite good results for home movies or video presentations providing you become familiar with its limitations.

Certainly it can produce good results in the school work area either as a slide show or part of a video production either put together by the students as a work project or as a means of making lessons more interesting. Home videos could also gain from it either with or without a genlock.

□

QuarterBack Tools



Written by Tim Strachan

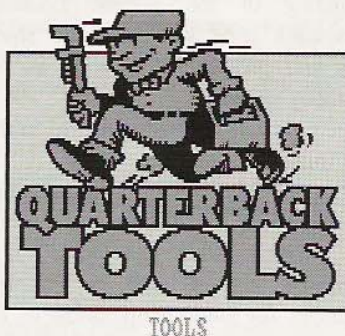
➤ *Quarterback* has carved a reputation as the best hard drive backup utility. Now, Tim Strachan examines *Quarterback Tools*, the namesake with an equally fast growing reputation.

Get rid of DiskSalv, DiskDoctor, FixDisk and Blitz-a-Disk! *Quarterback Tools* will do all that they can do and more, and in a single, easy-to-use program which works on both floppy disks and hard disks. Its main functions include: Optimisation of floppy or hard disks (similar to B.A.D.); Elimination of file fragmentation; Restoration of lost or even deleted files; Un-formats disks formatted by mistake; Recovers files from corrupted disks Finds bad blocks (sectors) on a disk and disables them, making disks usable.

Most importantly for hard drive users, *Quarterback Tools* can overcome the dreaded validation error. Previously this problem could only be overcome by archiving all files on the offending partition, and reformatting.

Use of the program

The interface is clear, and



intuitive. Anyone who uses the *Quarterback* hard disk backup program by the same publishers will get straight into this program, as there's a similar look and feel. The manual is occasionally a little ambiguous - but nothing too serious. You could pretty well get straight into the program without the manual anyway.

There are numerous useful tutorials and explanations of some of the more mysterious aspects of computing such as low and high-level formatting of disks, explained in a clear understandable way.

Installation is as simple as it could possibly be - simply drag the main

icon into the window where you want it to be. No accompanying files, no rewrites of startup-sequence, no change of mountlists, nothing.

The release notes need to be read to find out the latest changes to the programs and documentation. The program multitasks fine with itself.

There are pull-down menus available with options such as; Optimise for CLI or Workbench Screen mode; Quiet, Informative or Interactive. Most screens have such menus.

Options can be saved or loaded to/from disk and pull-down menus change according to the screen you're on. Note that you can display either volumes or drives, meaning by name or by device (ie, "Workbench" or DF0:), in case you can't get a name for a dud disk because AmigaDos can't read the disk at all.

The design of the program is simple, with a main menu leading on to sub-menus all designed to be clicked on. Memory usage can be selected at 3 levels, ie to use some or all memory available, so it adjusts for your setup.

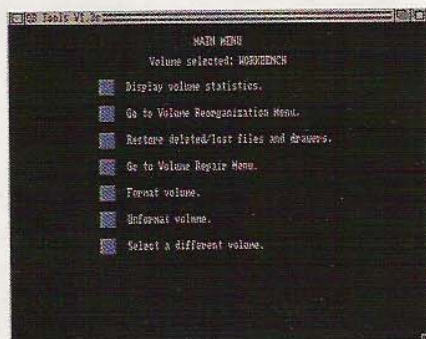
Performance Optimising

Checking out a really dud disk

I tested a disk which was very badly damaged - a total disaster of a disk. The program responded with "Error reading root block", however statistics for the drive such as size in kB, free space in kB, known bad blocks, lowcyl, no. of surfaces, preallocated blocks, maxtransfer (kB), memory type and other useful info were still displayed. When I hit "attempt to fix disk", a message was given that root block couldn't be read three times, then it built a catalogue of files, and told me it found six files belonging to one lost drawer, which couldn't be restored. However, *Quarterback Tools* did an excellent job of rebuilding the disk, and there was a lot of files that would otherwise have been lost. The process is fast.

The disk was so bad, that when I tried to format it from within QBTools, it was reported as too defective to be formatted. If you have a really serious disk problem which crashes AmigaDos when inserted, you can "disable AmigaDos" from the menu.

Generally speaking, if you have a disk with a Read/Write error, you'll be able to get back both the information on the disk and the disk itself with no problems, in a process that is logically set out.



Quarterback Tool's Main Menu

What is file fragmentation?

As the name implies, fragmentation is a side effect of the way AmigaDOS stores files whereby a single file ends up stored as a number of separate segments placed in a seemingly random fashion around the disk. This happens to speed up the speed at which data is written. Chunks are placed on the next available blank disk area under the drive head, rather than waiting for the correct consecutive location to arrive. Of course, a badly fragmented disk will become very slow to read as the disk heads have to move all around the disk to get everything.

This process is worse the fuller the disk, and the larger the files being stored on the disk. QBTools' approach to this is "reorganising" or "optimising" - in other words, it collects all the fragments of each file together and lays them down in one "contiguous" (connected) single piece; and it removes the "holes" on the disk by putting all the remaining space together in another place.

Test of Optimising a floppy

The floppy I tested took 10 secs to open up its window on Workbench before being optimised. It was 97% full, and was standard in every way. Choosing the "Display fragmentation" option showed a large rectangle with used and unused blocks, giving a very clear idea of how the disk was laid out. This particular one showed 13 fragments of unused space on the disk (rather than, say, one for a properly optimised disk). Then I tried the "count fragmented files" option, and this happened about twice as fast as a normal format.

Info brought up: 96 out of 133 fragmented files

Volume free space fragments: 13



Restoring deleted files.



The partition's specifications.

When the "reorganise" option is chosen, the same process of counting file fragmentation occurs again as above, and then processing occurs, while the fragmentation display rectangle is changed to reflect what's happening as you watch the process, and the individual files are shown as they are processed too. There is also a Pause button, though I don't see how useful it is.

The time taken for full reorganisation of volume: approx. 12 minutes. Time taken to open the disk's window after optimisation: 3 seconds. Verdict: it works very well, a bit slower than B.A.D. in the reorganising, but I'd say more powerful in effect.

Another disk took 16 seconds to open its main window before optimisation (about 10 icons to be shown). After optimisation, 9 seconds.

What are DISK ERRORS?

There are basically two kinds of

disk errors. Physical errors such as ["volume X has a read/write error"] and Logical errors ["Key X has a checksum error"]. Both have the unfortunate result of making it possible that your data is now lost if you don't know how to recover from the error. QBTools lets you recover from both these kinds of errors.

Physical errors are also called Hard errors and often result from imperfections in the disk surface, or problems with the disk head positioning mechanism. The result is that a Block of data (512 bytes) cannot be read from the disk by the computer and for a floppy it's probably worth trying to reformat the disk (after getting your data off it). With a hard disk you'll want to find the "bad blocks" and map them as unusable. QBTools will help you do all these things.

Logical errors or "soft" errors are those in which a block of data is successfully read from the disk but is later found to contain the wrong data. The cause is often dud software, but whatever the case, the data can't be trusted. "Key" here indicates an identification number for the erroneous block, but the meaning of those numbers is a bit of a mystery. You can get Gurus if the invalid block happens to be in a critical part of the disk directory structure. Logical errors do not mean your disk is dead - you can replace the questionable block with the right data, or simply restore the data (with QBTools) and then reformat the disk.

The worst situation with a disk error is if the lost data is part of the logical structure of the disk (especially the root block, where info is kept on the whereabouts of all the other data on the disk), making some or all files on the disk inaccessible. QBTools is designed to be able to get back the logical structure of the disk, or failing that, to find all the data on the disk and copy it to a new disk. From my tests, it does all these things pretty

well.

Problems using QBTools

There was some kind of contradiction in one test: the "find but don't repair" option in the Volume Repair section did find a serious and a minor problem on a particular disk. Going to the "Find and Repair" option, the program went through its paces and only found the minor problem this time. Going back to the "find but don't repair" option again found the serious problem.... Tried this a couple of times and eventually the problem seemed to be sorted out.

I did get one "Not enough memory" (impossible on this machine) followed by a "Recoverable alert" on WB2.0 (which they claim the program to be fully compatible with) when simply clicking on the "reorganise" menu option for a disk.

There is an odd quirk in the speed of screen changes occasionally - sometimes the program seems to think for a couple of seconds before responding to your mouse click.

The interface is nothing to write home about - not exciting, or colourful or particularly aesthetic. But then again, reliability and functionality are all in a utility such as this.

I'm told that Version 1.3 of the program has a problem with the program not finding correctly all the sizes and locations of hard disk partitions on systems using Commodore-manufactured A2090 and A2090A hard disk controllers. The version I tested is V. 1.3b, presumably with a fix of this problem. Certainly make sure you have a later version than 1.3 if you own one of the controllers mentioned.

Small problems

While attempting to format (within QBTools) a disk that had been fixed with the program (7 serious errors found, 1 minor), it came up with the news that the disk was defective and

couldn't be formatted. Selecting RETRY all the same, it went through the formatting process (ie, didn't check that the disk had been changed). Then during the format found the disk defective again.

The guru appeared once or twice - once while selecting a menu option having just inserted a disk. I do believe this is a problem with the WB2.0 Trackdisk device, however, as this has happened before in situations unrelated to QBTools.

Not all disks are recoverable - one disk had the root block corrupted and no files could be looked at at all, let alone recovered.

Compatibility

QBTools is claimed to work fine with Workbench 1.2 or later (though I didn't test this claim on 1.2). It also works fine with both the old Filing System and the newer FastFileSystem. The more memory you have, the faster it works, and it works with high-density floppies and removable cartridge drives as well as normal floppies and hard disks.

Final verdict

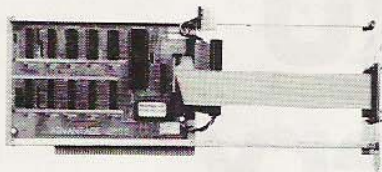
Considering that *B.A.D.* costs about \$30, and has been impossible for me to upgrade (they've never sent me any information about upgrading, although I've even written and pleaded), and that it only optimises a disk, it loses out badly in comparison to *Quarterback Tools*, which I've already found to be an often-used and very practical addition to my battery of utilities.

It's put out by a reliable and long-term Amiga software supplier which also has a number of other practical and reliable software tools in the market-place, namely: *Quarterback* hard disk backup utility, *Mac-2-Dos* file conversion utility, *Dos-2-dos* likewise for IBM-to-Amiga CCS does get in touch with you about upgrades.

□

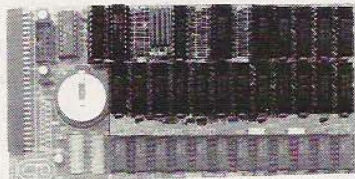
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ICD AdSCSI 2000	29	50	147	66	198	Create Write Read	78,352 86,133 91,762	168,298 190,379 237,763	336,807 457,690 457,041	392,272 645,277 642,190	4:37
IVS Trumpcard Professional	11	41	126	30	197	Create Write Read	28,860 30,139 74,988	153,831 189,238 244,848	267,899 505,528 499,569	313,226 617,093 640,148	5:59
GVP Series II	10	35	104	35	204	Create Write Read	29,142 29,909 60,750	154,273 187,258 239,531	256,876 461,229 432,960	311,771 542,842 603,225	6:19
GVP Impact 2000	10	33	96	31	203	Create Write Read	29,048 29,889 54,902	142,406 189,413 197,040	235,676 419,430 367,216	279,626 503,631 466,589	6:34
Commodore A2091	7	26	68	24	200	Create Write Read	15,780 17,559 38,153	94,187 116,736 171,451	199,728 349,525 413,189	224,069 393,312 579,357	8:08

68030 Results (GVP Impact™ A3001 68030 at 28 MHz with 4 megabytes of 32 bit RAM)

Host Adapter	Files Create	Open Close	Scan	Delete	Seek Read		512 Bytes	4,096 Bytes	32,768 Bytes	262,144 Bytes	Copy Test Mins/Secs
ICD AdSCSI 2000	92	145	382	259	783	Create Write Read	206,966 208,331 251,344	185,127 193,049 258,940	572,357 591,267 589,968	691,843 762,600 764,773	2:38
IVS Trumpcard Professional	13	69	213	52	667	Create Write Read	29,482 30,152 103,033	165,598 189,506 296,395	359,833 559,280 563,545	440,058 703,631 761,159	4:47
GVP Series II	12	64	185	53	768	Create Write Read	28,994 29,987 108,109	163,083 189,506 293,158	366,214 569,926 550,448	443,694 707,339 696,631	4:50
GVP Impact 2000	12	61	172	54	752	Create Write Read	29,372 29,952 54,902	162,258 189,506 197,040	347,714 562,168 367,216	446,648 715,872 466,589	4:56
Commodore A2091	10	46	117	31	752	Create Write Read	29,155 29,902 60,245	156,979 188,375 241,109	283,458 431,221 531,906	301,274 446,276 710,146	5:35

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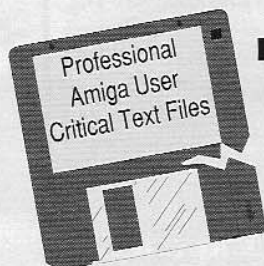
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Post - GURU Text Recovery

By Tony Day

Editor's Rule: The probability of a given text file becoming corrupted, damaged or somehow irretrievable is directly proportional to its importance and how late you've stayed up to finish it on time. To illustrate - the following story proves the rule and shows you how in one instance to get it back!

► It was a dark and stormy night - well it wasn't stormy but it does get quite dark at 11.30 at night. I was just putting the finishing touches to my article on how to fit a second floppy into the A3000. Being that time of night I guess the mind wasn't functioning as well as it could have.

That's one of my excuses - others will unfold. After completing the article the logical next step of course is to run it quickly through the spelling checker.

Well of course, but first you save it - don't you? I didn't save it first. Don't say it (or think it) - I know (any fool does) you must save at regular intervals - if your word processor doesn't do it for you.

I should have saved at the completion, before doing any further manipulation to the text such as putting it through the spelling checker. What made the stupidity worse was that I was using for the first time, the newly purchased *Prowrite 3.0* that I was hoping would become my all-time solution to word processing.

This may yet turn out to be correct with the newer update being *Prowrite 3.1* which I have since received (although *Excellence 2.0* may have something to say about that). But that's another story for another time perhaps.

Of course I hadn't really tried the

spelling checker before this - but so what? I know what I'm doing, and anyway it's getting late so just get it over and done with.

Famous last words, particularly as, unknown to me at the time, I didn't install *Prowrite* properly and the spell-checker wasn't going to co-operate. It could have been the version of *Workbench 2.0* that I was using at the time (since updated) but in either case it should not have been allowed to happen.

So there I was, I ran the spell-checker on my unsaved document and the whole thing locked up. It just sat there blankly, unmovingly staring back at me. And I sat there blankly and unmovingly staring at it.

As I sat there outwardly calmly my mind was racing furiously thinking: No this can't be happening? Why me? Maybe it's just working? How could I have done something so stupid?

Now the one thing I have learned over my years of computing is that things should not be compounded at times of major disaster by going ahead like a charging bull. Two things I knew were inescapable, one that I would have to reboot to resume even if I didn't get an alert message (there are no Guru messages in *Workbench 2.0*).

The other thing I knew for certain

is that the text that I had written was in fact still there somewhere in memory, if only I could get to it with something and recover it.

Best to sleep on it and attack it with a fresh mind in the morning. Of course the computer had to be left on otherwise whatever was left in memory would be really lost.

Finding Help

The following day in a lesser state of panic I rang Tim Strachan of Megadisc and enquired what his suggestion would be as to the best utility to use to recover text hiding somewhere in memory.

He suggested "*TRACKDOS*" by Nic Wilson, version 1.0 of which was fortunately readily available as published in Megadisc 16. Tim also suggested that as this might be a tricky and unusual operation, if I wanted any further details on exactly how to use *Trackdos* for this task, I should ring Nic himself for advice.

This I did almost immediately - one of the huge advantages of using software that is well written by local talent. Nic was extremely helpful to the point of not only easing my mind by being confident that *Trackdos* would do what I need, but also in suggesting a starting address for a one Meg block of memory where the text I was trying to recover was most likely

to be found.

Finding the location of the text in memory was always going to be the hardest part, particularly as I had just installed an eight Meg Microbotics card giving a total of 10 Megs of memory. As it happened all things went exactly as hoped for, from there on. *Trackdos* has a "Memory to DOS" function which to quote Nic's excellent documentation 'Transfers data from memory to a file'.

What could be easier? I just gave it the source address of where in memory I wanted to start from (insert address in Hexadecimal) the memory address where to end (add one Megabyte) and give it the path and the name of the file that it will save the contents of the nominated block of memory into.

Text Recovery in Sight

Once I did that it was a relatively simple matter of using my favourite file editor, *FileMaster*, to search the file for my text. And there it was - the very first Megabyte block of memory as suggested did actually contain all the text of my file, fortunately not yet written over by other things going into memory (something that could have easily happened either before or after reboot). Some things you just have to take a chance on.

Once the text area was found the ASCII (the actual letters) were saved to another file which I then re-edited with my old favorite word processor in *Platinum Works* (*Scribble II*). And that was it.

A bit of an anti-climax at the end, more routine than anything, but the important thing was the complete recovery of the article that appeared at first to be lost. Possibly more useful are the lessons learned along the way about saving, the use of *Trackdisk* and the procedure to go through with *FileMaster* of searching for and recovering text found within the file created by *Trackdisk*.

All useful skills learned for the next time something similar happens. What next time? The above shouldn't ever happen again - but it will, it will.

□

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Art Gallery

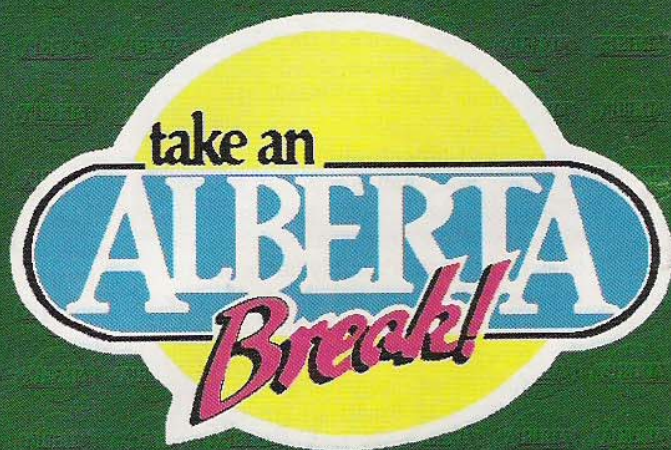


"Around the House"
By Mr. Tim Eckel



► This month we have an assortment of ray-traced images from all over the place. Most are included here because they were generated using one of the newer Ray-tracing packages.

See **VIDEO UPDATE** for competition details : Australian Art 'n Anim Competition.

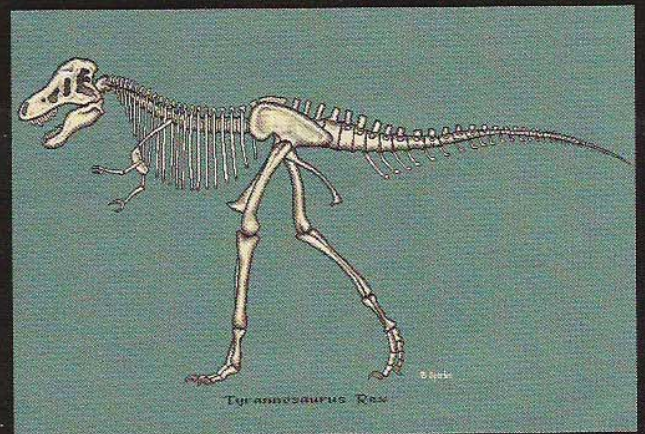
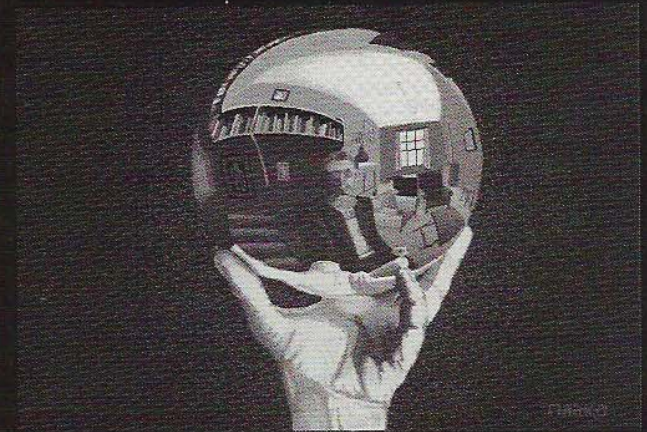


Art Gallery

55



- ▶ Above - A hand rendered frog.
- ▶ Top Right - Jealousy, traced using a tablet.
- ▶ Below - Sculpt ray-traced Tomcat,.
- ▶ Bottom Right - Hires detail at its best .
- ▶ Right - Hand drawn over many weeks - Escher.



Professional Amiga User

Prime Artifax Public Domain

Amiga-Live Issue Six

\$24.95 (3 disk set)

FEATURE Game

Drip: A full blown arcade game that's very out of the ordinary. It's up to you, as the 'Drip', to rust your way up 15 floors and get the juices flowing again. Avoid running or dripping into the acid, plasma and icecubes shooting out of pipes. You can get a little help from party balloons and bubbles that float by. Drip requires 512k of memory.

Entertainment

BoingDemo: Despite the name, this is not a demo as such - it's one of those try before you buy versions of a commercial game, only this one is very playable. The Boing part is a salute to the original Amiga Boing Demo! In this level and ladders game, you travel about on poles, ladders, teleport points and at all costs avoid the Boncing Amiga Ball!

RollOn: The play is a little like Boulderdash or Emerald Mine. Eight levels are included. To win you need to plan ahead and organise your moves carefully - sort of a joystick strategy. Includes a level editor to design your own games.

SlotCars: A complete working game of SlotCars...just one of four games in the commercial package known as: 4 IN ONE - EASY BUT FUN! The game concepts are simple but addictive. A combination of strategy and dexterity is needed to beat this one.

MoonBase: Adventure/Arcade - guide the shuttle ship to and from the mother ship with the valuable cargo. A multi-level lunar lander.

Strategy

Turn: A strategy game - the aim of which is to produce a given pattern of stones on the board. In order to complicate the game a little bit, all stones around the selected stone will turn either from black to white or from white to black. There are 18 levels available. There's also a pattern editor to design your own games.

China Challenge: Similar to the well known game Shanghai or Mahjong, the target of China Challenge is, to remove all parts of the pile, the so called Dragon, step by step. This dragon is composed out of 120 different pieces. A challenging past time, fun for two players too!

MarbleSlide: You've got to be quick to get this one. This is the fullest extent to which we've ever seen the old magic square theme taken - and one of the best. Slide the sliders to guide the marble home. But your time is VERY limited!

AmiGo: Strategy Board game for one, two or no players!

Workbench

SimGen: How would you like Saturn on your Workbench? SimGen makes your screen look like it is Genlocked. A number of example images are included. Much better than DropCloth or any other of these Workbench background programs. Doesn't slow your Amiga down either!

Flip: This screen gag will drive you nuts. Try it out!

Rocket: Yet another in the great line of Workbench gags. This little number releases a guided rocket which heads straight for your mouse pointer. If you don't move in time, on impact the whole lot explodes. Stick it on a friends Workbench for fun!

Business

Liner: Our serious program for the month. If you develop out-lines for speech, writing, essays or reports, this program will help you organise and edit your material in point form - the best way to develop an outline! A fast solid program.

WO: A short and quick utility, which helps you to bring order in your addresses and codes them and saves them (password encoded) on disk.

Graphics

MandAnim: If you enjoy mandelbrots, you'll love MandAnim. Using a simple tweening process, you can select multiple key areas of a mandelbrot. MandAnim will generate as many steps as you specify between each frame creating an expanded animation file which you can load and animate in Deluxe Paint III. Some impressive graphics can be achieved.

Hennon: You can create some fabulous looking images using this program which lets you explore Hennon mapping. The program produces patterns like the one below using the formula $x = x * \cos(a) - (y - x * x) * \sin(a)$ and $y = x * \sin(a) + (y - x * x) * \cos(a)$. Several example images are included. Full 640 x 400 hires is supported.

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Atari Emulator \$5.50

Despite the German menu titles, it is possible to put this Atari emulator which runs in low, medium or hires to some use. Will run some applications and can be used to view Atari graphics. Assorted other utilities are included on the disk.

C64 Emulator \$5.50

A very full-blown C64 emulator. Lots of utilities, more menu control and transfer options than previous commercial programs. If you like what you see you'll need to purchase the serial interface direct from the U.S.A. - full details included with the disk. Full documentation on disk.

MandelBrot & Julia Collection

**SIX DISK SET
\$24.95**

Brownian: A demo based on both fractal theory and brownian motion.

Cloud: A program that generates and displays fractal surfaces that look remarkably like clouds.

CPM: A program to compute mandelbrot via the Continous Potential Method, as described in the book "The Science of Fractal Images" by H. O. Pietgen and D. Saupe. It is used to make 3-dimensional pictures of the mandelbrot set. This is a batch mode type program so several images can be generated, one after the other, without any human interaction.

DEM: A program to compute mandelbrot via the Distance Estimator Method, as described in the book "The Science of Fractal Images" by H. O. Pietgen and D. Saupe. It is used to make high resolution black-and-white images. This is a batch mode type program so several images can be generated, one after the other, without any human interaction.

FractalLab: Investigate the realm of fractals and allow your imagination to run wild. Virtually an unlimited number of these self-similar curves can be created with FractalLab. Includes samples.

Fractals: A Fractal generator that generates many different types of fractals based on the iteration of complex-valued formulas. The program can generate the Mandelbrot and Julia sets, as well as the sets of more unusual formulas such as $\lambda \cos(z)$ and Newton-R.

IceFrac: A fractal generator using the Diffusion Limited Aggregation algorithm, as described in the book "The Beauty of Fractal Images".

IFS: An Iterated Function System viewer which graphically displays iterated function systems and allows the user to interactively create the affine functions that define such systems. An IFS can represent complex pictures very compactly. Simple IFSs can describe an infinite number of different and interesting fractal displays. Includes a number of displays that the author and others have discovered.

MandAnim: A Mandelbrot Animation program that allows you to easily generate series of lo-res/16-color pictures. Features full mouse and/or keyboard operation, zooms, auto-save, high (cheat) speed, iconization, etc. The generated pictures all remember their positions and settings so they can be re-loaded.

MandelBlitz: Very fast Mandelbrot plotter with lots of handy functions such as color cycling, zoom, special palette control, file requestors and more.

MandelMountains: A program that renders three-dimensional images of blowups of the Mandelbrot set. Includes several example images.

TurboMandel: A fast mandelbrot program, written in a mix of C and assembly language. You can select between using floating point or integer calculation. Other features include a full intuition interface, cycling capabilities, extensive color control, a user definable iteration depth, fully implemented zoom, a 3-D display mode, support for extra halfbrite as well as interlace and hires, IFF load and save, accuracy selections, and more.

Mandelbrot: A fast Mandelbrot rendering program that uses some of the mathematical properties of the Mandelbrot set to greatly reduce the drawing time. Demonstrates graphics programming, assembly language, menus and IFF file I/O.

Mandel: Another mandelbrot generator program. New features and improvements include an ARexx interface, co-ordinates in sight, more state info saved with a picture, batch files, programmable functions, and more plotting options.

MandelVroom: A Mandelbrot/Julia-curve generating program that features five numerical generators (integer, ffp, ieee, 020, and 020/881) in hand-crafted assembly for maximum speed, online mouse selectable help for all functions, generation of multiple pictures simultaneously, a sophisticated user interface with shaded gadgets, etc. Some of the other features include zoom, magnify, color-cycling, contouring, auto-contouring, histogram, statistics, presets, extra-halfbrite support, overscan, orbits, pan mode, and more. Requires 1Mb or more of memory.

Mandel: Another mandelbrot generator program, with bits and pieces of code from C. Heath and R.J. Mical.

Plasma: A plasma cloud generator program that uses the extra halfbrite mode. Plasma clouds are a special form of fractal which show very smooth color gradations.

PolySys: An extended version of the OL-system described in The Science of Fractal Images. The basic algorithm has been expanded and modified extensively, and looping commands similar to those found in other Turtle graphics systems (Logo, etc) have been added. Support for three-dimensional drawing, with perspective, is also included.

Slicer: Slicer computes and displays images of the Mandelbrot and Julia sets. Unlike many Mandelbrot programs that generate pictures directly, Slicer computes and stores an array of raw data which it may then render into pictures in a number of ways.

ZPlot: Graphs formulas based on 4-D complex number planes. ZPlot currently supports the Mandelbrot set, Julia sets, and Phoenix curves, with over 500 mapping variations. The math functions supported include $\sin(z)$, $\sinh(z)$, z^2 , e^{z^2} , z^n , $\sqrt[n]{z}$, $\cos(z)$, $\cosh(z)$, $\tan(z)$, $\tanh(z)$, $\log(z)$, $\ln(z)$ and n^z .

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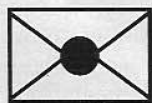
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Rigging up for C



by Jonathan Potter

► If you are just starting C programming on the Amiga, one of the most important factors in how successful you will be is the environment you work in. This refers to the setup of your computer, not your actual physical environment.

Hardware You Will Need

The first requirement is, of course, an Amiga. A colour monitor is almost a necessity, as is a printer. It is best to have more than one megabyte of RAM. It is possible to get by with one megabyte (in a pinch), but you will be severely limited by it. A hard drive is another "virtual necessity".

Like the RAM situation, it is possible to develop C programs on the Amiga with only floppies, but a hard drive makes it so much easier and faster. I have met a few people who are trying to program in C with only one disk drive and 512K. On other computers this may be adequate, but on the Amiga it is virtually impossible. Unless you use a third party CLI (or Shell), the Amiga's CLI has no built in commands. Not only that, but most C compilers will require at least two disks just for the executable programs, include files and libraries.

To summarise, the minimum system required is one megabyte of RAM with two floppy disk drives. An ideal system

is (at least) two megabytes with at least a 20 meg hard drive.

I work with an A3000 with 6 megabytes of RAM and a 50 megabyte hard drive, and an A1000 with 4.75 megabytes of RAM and a 42 megabyte hard drive.

Software You Will Need

Once you have your computer system set up, it is time to decide which compiler to use. There are a number of public domain compilers, and there are also two main commercial ones. This article is not intended to be a review of C compilers, so I will just say that I own both *Aztec C* and *Lattice C*, and prefer *Aztec*. I concentrate in this article on *Aztec C*, although the differences to *Lattice C* are not major in some respects.

Aztec C can be purchased from most large computer stores, or mail ordered from the USA.

Another software requirement is a text editor. Neither of the commercial C compilers is fully integrated (compiler, linker, text editor and debugger built into one program). *Lattice C 5.10* may address this need, but I have not seen it yet.

There are many, quite good, public domain text editors, and there are some excellent commercial ones available for the Amiga. The public domain editors

include *Az* (by Jean-Michel Forgeas, latest version Fish #346), *Dme* (by Matt Dillon, latest version Fish #284), and *MicroEMACS* (originally by Dave Conroy, latest version Fish #195). There is also a version of *MicroEMACS* on the Extras disk supplied with your Amiga.

The best commercial text editors I have seen are *CygnusEd Professional* (by ASDG-Inc.) and *TxE* (by Microsmith). *CygnusEd Professional* is the one I use.

There is other, secondary software that is useful. Briefly, *Quarterback* (Central Coast Software) for backing up your hard drive, *Deluxe Paint III* (Electronic Arts) for designing imagery for your programs, and *GOMF 3.0* (Pro-Tronic Systems Ltd.) for trapping Gurus and preventing lost data.

Some other useful software I own includes *WShell* and *ARexx* (Wishful Thinking Development Corp.). *WShell* is a shell for the Amiga that provides command aliases and abbreviations, several built-in commands, resident commands, command piping and filename completion. *ARexx* is a programming language, similar to BASIC, but allows programs with *ARexx* interfaces to be controlled from a script file. Many programs written these days support *ARexx* interfaces, and *ARexx* is useful to have if you are ever

Tutorial

going to add an interface to one of your own programs.

ReSource (The Puzzle Factory) is an excellent disassembler if you are going to be using assembly language in your C programming. The Aztec C compiler comes with its own assembler, as does Lattice. An excellent assembler (that is not Aztec C compatible unfortunately) is the DevPac assembler (MichTron). There are other good assemblers available as well, but DevPac is the one I use.

This may be difficult for most people to obtain, but it is often invaluable to possess most (if not all) of the Fish disk collection. These disks are full of useful source code examples, as well as utilities. Now numbering 450 disks, it may be a little excessive for some people, but it is cheap enough to store it on 5.25" disks, and the benefits (for me) outweigh the disadvantages enormously.

Books To Buy

It is almost impossible to take advantage of the Amiga unless you have some good reference books. The Rom Kernal Reference Manuals (Includes & Autodocs, Hardware and Libraries and Devices), written by Commodore and published by Addison-Wesley, are almost a necessity. The AmigaDOS reference manual, published by Bantam, is also extremely useful. There are numerous other books available, including the *Amiga System Programmer's Guide* (standard and Advanced) by Abacus, and the *Amiga Programmer's Handbook* (2 volumes) published by Sybex. Most books unfortunately go for about \$60 a pop, but if you're serious about C programming on the Amiga, they are necessary.

Setting Up Your System

This assumes that you have a hard drive. If not, follow the instructions in your C compiler's manual for floppy disk drive usage, and try not to get too frustrated.

Aztec C v5.0 comes on four disks. The first disk contains the C include

files, and two installation programs (one for floppy disks and one for hard drives).

Disk 2 contains the executable files; the compiler, assembler and linker, and several additional utilities, including Z, a usable text editor. Disk 2 also contains the linkable libraries maths and standard libraries (in small code/data format).

On disk 3 there are two .ZOO files (requiring Zoo to de-archive) containing the 1.3 release of the ARP library, commands and developer files. In the BIN directory on disk 3 there are more useful utilities, including MAKE, the "project maintenance utility". Disk 3 also contains the source code (in C) to the startup and exit routines. The LIB directory contains more the large code/data version of the linkable libraries.

The BIN directory on disk 4 contains even more useful utilities, including DB, an excellent debugger, and SDB, a source-level debugger. The LIB directory contains both small and large code/data versions of some more linkable libraries, and also contains the detach.xxx startup modules that allow a program to detach from the CLI it is run from. The RES_LIB directory contains files needed if you are creating resident libraries in C. Disk 4 also contains some interesting example C programs.

The HDInstall program on disk 1 allows you to install Aztec C on your hard drive very easily. The program asks you for the source drive (defaults to DF0:) and the destination device (defaults to DH0:). It also asks you for the pathnames to install the files in. The defaults for these are usually quite acceptable, and will create a directory in the root directory of your hard drive called Aztec.

The program also allows you to pick which libraries should be installed. For most purposes, the Small Code/Small Data will be adequate, as Large Code/Data is only needed for very large programs. The only maths library you should require is Manx's own IEEE library, and you should select 32 bit integers. If you have enough space on your harddrive (approx 3-4 megs), you

might as well install all the libraries. It will save you coming back later when you find you do need them after all.

You are also given the option to copy the example programs from Disk 4 to your hard drive. Once you have chosen what you wish to install, click on the gadget marked BEGIN INSTALLATION, and follow the instructions from there.

Modifying Your Startup-sequence

Once Aztec's files have been installed, you need to modify your startup-sequence slightly. Your startup-sequence may or may not be the standard Commodore one. For our purposes, it doesn't really matter.

Add these lines somewhere near the top of your startup sequence.

```
assign AZTEC: DH0:Aztec
assign INCLUDE: DH0:Aztec/Include
assign LIB: DH0:Aztec/Lib
assign BIN: DH0:Aztec/Bin
path BIN: add
```

Following these lines, add the following:

```
Set INCLUDE=INCLUDE:AZTEC:asm
CLIB=LIB: CCTEMP=ram:
```

The Set command is a program supplied with Aztec C that would have been copied during the installation process. It simply sets up several environment variables, telling Aztec C where to find the files it needs.

If you have lots of RAM to spare, you can leave CCTEMP=ram:. This is where the compiler writes its temporary files. If you do not have the RAM to spare, create a directory on your hard drive, and set CCTEMP= to that path.

Your Work Directory

Again, if you do have lots of memory, it is much faster to work in RAM. Never, repeat NEVER, work in the RAM disk itself, even if you are running GOMF. It is just too easy to lose work that way.

A recoverable RAM disk, such as ASDG-Inc.'s VD0:, or Commodore's

RAD: device are a much safer way to work. All you need to remember is to copy your work from RAM to your hard drive before you end each session. You should also make regular copies just in case of power failures, etc.

If you do not have enough memory to work in RAM, or you have a really fast hard drive, it is probably better to work on your hard drive. Create a directory called Work on your hard drive. Add an assign for it in your startup-sequence :

```
assign WORK: DH0:Work
```

and a path to it :

```
path WORK: add
```

And if you like, you can add this command near the end of your startup-sequence :

```
cd WORK:
```

This leaves you in your Work directory at the end of the startup-sequence.

Other Speed-up Tips

Unless you have a 3000 or similarly fast machine, C compiling on the Amiga can be a slow process. There are, however, a number of things you can do to speed up the development process.

Keep as much data in RAM as you can. This means setting CTEMP=ram:, and if you have the memory, have your startup-sequence copy the compiler, assembler and linker to RAM: each time you reboot. This could be accomplished by adding these lines to the startup-sequence :

```
if not exists RAM:aztec
  mkdir RAM:aztec
  copy BIN:cc RAM:aztec
  copy BIN:as RAM:aztec
  copy BIN:ln RAM:aztec
  path RAM:aztec add
endif
```

This takes into account the possibility of recoverable RAM disks, and will not copy the files over if they already exist. These lines should be added before the path BIN: add command described above (if they are added at all), so that the directory

RAM:aztec will have precedence over BIN:.

Pre-compiled include files can also speed-up compiling enormously. Amiga programs generally require many include files, and having to compile them each time a program is compiled takes unnecessary time. You only need to compile the include files once, then after that, the compiler derives all its include information from the one file.

To create a pre-compiled include file under Aztec C, you need to first create a text file containing the path names of every include file in the INCLUDE: directory. If there are include files you know you definitely won't be needing, these can be omitted. For instance,

```
#include <intuition/intuitionbase.h>
#include <intuition/intuition.h>
#include <intuition/screens.h>
#include <intuition/preferences.h>
```

```
#include <devices/audio.h>
#include <devices/gameport.h>
#include <devices/serial.h>
```

```
#include <signal.h>
#include <errno.h>
#include <stdlib.h>
#include <time.h>
```

There is no really easy way to create this file. To get a complete list of all the include files, type

```
dir include: opt a
```

You can re-direct the output of this to another file, and create the list from that.

```
dir >ram:temp include: opt a
```

Once you have your list of include files (called include.c for instance), you can compile it with the following statement :

```
cc -ho include.dmp include.c
```

This will then create the file include.dmp, which contains all the information from the include files. This

file is about 175K long under Aztec C 5.0.

This file should be stored in your main AZTEC: directory. Again, if you have the RAM, you could copy this file to the RAM disk every reboot.

From now on, to compile, you simply have to include a -hi include.dmp (with appropriate pathname if necessary), and you can leave the #includes out of your source code. Compiling will generally be much faster.

Other Useful Tips

If you have a hard drive, collect all the little utilities you come across. This includes programs such as ILBM2C (converts IFF brushes to C source code), GuruInfo (displays meaningful text from guru codes), AI (changes the guru display into meaningful text), XOper (amazingly useful system monitoring tool), and many more. You will never know when these programs will be invaluable to you. My C directory contains over 300 files and is over 6 megabytes long.

Collect all the source code you come across. Build up a disk library of example source code on any topic under the sun. Indexed, it becomes an invaluable programming aid.

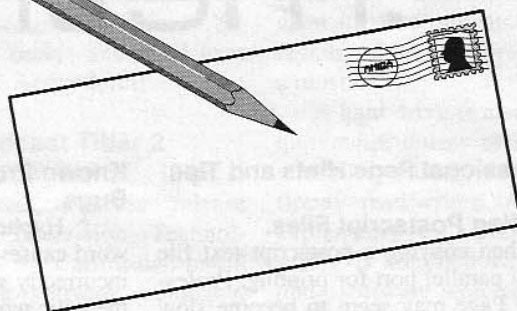
If you find yourself using Shareware programs, send the authors their requested donation. Even if you are using public domain programs, you might like to send the authors something for their effort. It will encourage them to keep their programs up to date, and to write new ones, and who knows? You might find yourself in their position one day.

Whenever you buy a commercial program, make sure you return the registration card. The free upgrades and technical support offered by most companies is often very important, and it is your right as a consumer of their products to be supported.

Above all, enjoy programming the Amiga. It's a great computer to work on, and you can produce some amazing results with just a little time and effort. Make it unforgettably great.

□

Letters



Congratulations

Yours is a top paper mag - paper being the preferred form of magazine for me! I'm so sick of spending heaps on dated U.S. & U.K. publications which concentrate on games reviews etc. Your publication rightly deserves support for providing a superior, serious magazine.

I'm not a professional user, but a user with aspirations and your magazine fires these. It is particularly enlightening to read what other users are doing with the Amiga. I like the mix of articles and news and am looking forward to future issues.

Ed: Thank you for your comments. It's great to hear some people still prefer to flip through Amiga information they can hold in their hand instead of glaring at a phosphor screen. We'll do our best to keep you fired!

Desktop Publishing

"Congrats" to you and your team for a much needed magazine directed at the professional user. We are a Printing office in the heart of Barossa Valley I'm compelled to tell just how frustrating it is in the Desktop publishing world of the Amiga.

We have had many problems in the past some are now ironed out, but many still remain. Gripe Number One is the true availability of some programs. We waited five weeks for Professional Page for a business to operate. That is disgusting in my books, no wonder pirating goes on.

I have had a lot of experience with the Apple Mac environment. Mainly because 95% of the Desktop Publishing market in

South Australia is dominated by Macs. All I can say is we have a long way to go to get to the standard of Mac programs. What is needed is a structured drawing program like Aldus Freehand or Adobe Illustrator. They have true graduated and radiated tones, Pantone colors (The Printing Industry Standard) for colour matching. Also what is needed are more postscript fonts.

I've sent letters to Gold Disk asking about the availability of more fonts for Professional Page. That was six months ago and still no letter of reply.

We are dedicated to using the Amiga in desktop publishing due to its price advantage over Mac systems. And its far superior features like multitasking.

We are currently running PPage 1.3. I'd call it semi-professional though. It does have a few bugs like locking up, for no apparent reason and losing bits off the page. I do hope that I haven't put any one off who is wanting to get into the desktop publishing side of the Amiga. The results I can tell you are every bit as good as the very expensive Mac and IBM Desktop publishing systems. Just be patient with the current programs available.

D.Falkenberg

Ed: Since we received your letter, things have improved. The latest Professional Page offers Pantone colour support. There are now several structured draw programs - we are waiting to see if one of the new entries has gradient fills. As for fonts, try Mirror Image Productions on 416-495 7469. They sell a great Mac to Amiga font conversion program. There

are also a reasonable range of Compu-graphic fonts available from Dataflow on (02) 331 6153, not to mention some useful clip-art. For more information see the comparison of Pagemaster and Professional Page in this issue and keep reading the Metric Clips column.

Productivity Muscle

Congratulations on your magazine - just what the Amiga needs - a place in the business and professional world. Far too often people regard the Amiga as a specialist machine (video or just a games computer). The Amiga has always provided me with productivity muscle. I regularly use spreadsheets (I use the one in Works PLatinum - which is similar to Lotus and extremely fast... unfortunately omitted in your good article on spreadsheets), as well as publishing, word processing, desktop video as well as a little dabbling with music. I've generally done my best to see Amigas in classrooms, and have demonstrated the machine regularly to peers as well as hosting in service seminars for teachers.

Ed: A well rounded Amiga user - no doubt you and many others like yourself are responsible for the Amigas success through your own efforts to promote the machine. We agree whole heartedly with your comments. Professional Amiga User magazine will continue to present the Amiga as a serious machine. Next issue we plan to place more regard to other similar platforms when considering the Amigas power and usefulness as a business machine - watch for our head to head comparisons soon. □

.metric clips

by Andrew Farrell

Professional Page Hints and Tips

Proofing Postscript Files.

When copying a postscript text file to you parallel port for printing, Professional Page may seem to become slow and the mouse movement is jerky. The problem seems to be the number of bit-planes on the custom screen. Any program running when a copy to the PAR: device is running will slow down if it has too many bit-planes or colours. To solve this problem, select black and white mode and you will return to normal speed.

Reverse Text

Many people have had trouble working out how to make reverse text. Unlike Pagestream, there is not a reverse text styl. The reason is you don't need one! To create reverse text simply make a text box, place the text in the middle using box margins and justification center option. Then make the text box filled with colour black. The select all the text (use Shift-F4) and choose white for your text colour. You'll now have white text in a black box. Using this same procedure you can have any colour text in any colour box.

Output to a lynotron printer

From the postscript output options, set you page size to 30 x 34 cms. Select center and crop marks on if required. Make sure you increase the density and angle to take advantage of the higher resolution of the lynotron printer. The following angles are used by us to produce Professional Amiga User - (you'll find them in the supplement manual to version 1.3 - however they are not included with version 2.0). These angles and density settings compensate for the inherent inaccuracies of the lynotron printer.

	Density	Angle
Black	128.289	45
Yellow	115.455	0
Magenta	108.503	19.9831
Cyan	108.503	70.0167

Known Professional Page 2.0 Bugs

* Hyphenation across an italicised word causes the italics/normal to toggle incorrectly so that unitalicised text after the italic words becomes italicised. FIX: The only way to fix it is to unhyphenate the word.

* A tint behind text is colour separated as a dead fit which makes it useless - ie: there is a white space behind the black text. FIX: One must delete all text on tints before separating the mechanical colour - very long winded on complex ads. This is a real pain.

* Mechanical colours don't always show in separation menu. FIX: Highlight some text first, choose Text Colour, Palette then ADD the colour again. It will now show in menu.

* Also, pages with no text in mechanical colour, but with boxes of tints or keylines in mechanical colour, there is no way to make mechanical colour show in separation menu. FIX: Add some spot colour text to the page (try a small unnoticeable full stop).

* At certain magnification levels, Compugraphic fonts occasionally play up - some characters are only displayed as odd graphic symbols. FIX: Use higher magnification. (Not much of a fix).

Professional Art Department

Although we're still awaiting a review copy, here's the full run down on Art Department Professional's features. ADPro does all of its processing in true color (16.7 million colors) or in 256 shades of gray for the best results possible. You can read and write any image file format. ADPro's Loader and Saver modules allow you to transfer images between formats and add formats as your needs grow. Included in this package are Loaders and Savers for the following formats:

IFF
Digi-View 3.0
GIF
Turbo-Silver

PCX

DPaint II Enhanced

Sculpt 4D

Screen (Loader Only)

BackDrop (Loader Only)

PostScript (Saver Only)

Mimetics FrameBuffer (Saver Only)

One of the most significant additions is the advanced image composition features (with variable mix and transparency), which let you merge any number of images into a single true color image. You can edit 24 bit-plane images even if you don't own a 24 bit display board or paint program. Also, ADPro makes gradated backgrounds for creating professional quality presentation graphics. There's now an ARExx port allowing sophisticated macros, network, batch and unattended operations. ADPro performs many critical image processing functions. This package includes Operator modules which perform the following:

Covert color to gray scale - Modify dynamic range - Create line art -

Scale images up to down - Remove isolated pixels - Perform horizontal and vertical flips - Produce 3 and 4 color separations - Rotate in 90 degree increments - Produce color or gray scale negatives - Draw filled rectangles - Crop an image - Compensate for video smear - Perform poisterization and solarization - Address the Transport Controller

If new needs arise, ADPro can be expanded with additional Operator modules. Therefore, ADPro never becomes obsolete. On total some 208 video modes including PAL and NTSC, 7 dithering methods, and hundreds of other rendering modes are supported. ADpro will use as much contiguous fast memory as you have. We recommend at least 2 megabytes of fast memory. The Pro version is compatible with WorkBench 1.3 and 2.0, all Amiga models, and all Amiga accelerator cards.

□

The Mediaphile Desktop Video System

Part I

Are you looking for a complete video solution? Cast your eyes over this package - which is the first complete attempt we have seen at bundling everything that you would need for time coded video production into one neat kit which can be expanded as required. Peter Ward investigates.

► Consider a video editing system that allows you to edit video tape within one or two frames, add a SMPTE window dub to your existing footage, add SMPTE code to your audio track, build an edit decision list of several hundred (and more) edits and perform other wonders such as an A/B dissolve using a switcher.

Normally one would be talking big rental dollars at a post production editing facility or even bigger dollars for a third party to create the whole production. Just how big you ask? To

buy such equipment in Australia (early March 1991) a JVC professional S-VHS system starts at around \$16,000. Similar Panasonic equipment at \$20,000, and that is just for the VCR's and Edit controller! Then there is a switcher, starting at say \$4000 for a Panasonic MX-12 and so it goes.

Enter the Mediaphile system, by Interactive Microsystems in the U.S.A. From the outset it must be said that this system is designed for use with high-end domestic VCR's. "Prosumer" decks as they tend to be called locally. While \$1500 to \$2000 for a VCR is not cheap, it does provide good quality (400 lines of resolution with either Hi-8mm or S-VHS) videotape at a fraction of the cost of a similar professional machine.

The package sent to Professional Amiga User magazine for review consisted of the Sony edit control system (CTL-L) hardware with the infrared upgrade option and the Mediaphile Utilities, Servers and MediaProcessor software. One should not be misled into thinking that this system is designed for Sony equipment only. Via the infrared controller one can also control any other brand of VCR as well.

The associated flexibility of the system is awesome. Laser disk players, CD audio players, televisions

and just about anything else with an infrared remote can also be controlled.

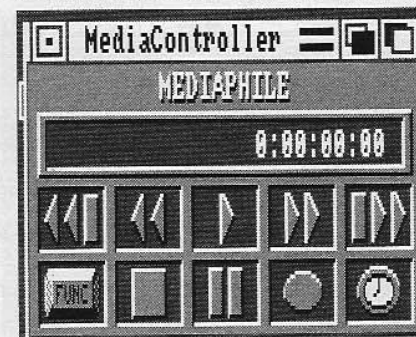
Due to the complexity and versatility of the MediaPhile system I'll be looking at the three modules in the mediaphile system individually, and at how you can build a complete professional video editing system for a fraction of the cost of what is currently being asked.

The Hardware

The Mediaphile 2.0S Sony Control-L interface plugs directly into the serial port of your Amiga. Frankly, it doesn't look like much. A serial plug connected to some cables. That's all there is. There are two Control-L inputs and one remote-pause output. With the Up-Grade (UG) option there is also an infrared controller (which uses either Left or



S.M.P.T.E. time code generator.



Onscreen control of your VCR.

Right audio ports of the Amiga), a Sony Control-S for output and a SMPTE line for input from an audio channel on your VCR. In ordering the hardware it would be best to specify the UG option from the start, as a system without this would be limited. Similarly one should take note of the Control-L input/output on your Sony deck as sense cables can be either a mini-DIN type or mini-stereo plug type.

To be fair I later took the casing off the serial plug, and discovered there was more to this than met the eye. There was a tiny PCB and a few integrated circuits in that compact area, so a "serial plug" is perhaps a little unfair. Additional equipment used for this evaluation was a Sony EVS-1000 Hi-8mm VCR, a Panasonic NVS-1000 S-VHS VCR, Neriki Y/C Desktop Genlock and an Amiga 2500/030.

The Mediaphile system can be configured to suit most major video manufacturer's equipment, including, amongst others JVC, Sony, Panasonic and Toshiba. The most versatile system would be the MediaPhile 2.0P system, which allows your Amiga to "learn" the infrared codes of any particular equipment. This option also requires that the VCR have a counter "sense" cable soldered within the VCR. Apparently not a difficult operation. Instructions for installation in most decks are supplied by Interactive MicroSystems and take you through the procedure step by step. In developing a DeskTop Video

System my advice would be to stick with the same Manufacturer of VCR or whatever, with your initial equipment purchase if possible, then configure a Mediaphile system to suit.

The Software

For this installment I'll be looking at the MediaPhile software package. It is not copy protected can be installed onto a hard disk. Fact of the matter is, running the system without a hard disk would be tiresome. Full descriptions of the software installation are provided in the associated manual however the procedure is simply click on the "install-HD" icon and also modify your start-up sequence.

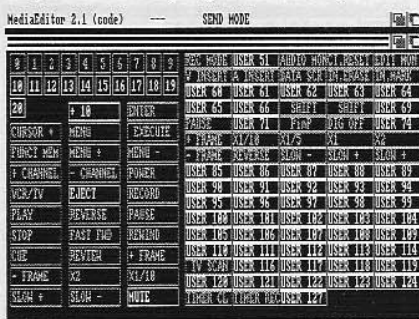
In the main, the interface is functional, with most functions being available via screen gadgets or menu selections.

The MediaPhile software has four major components. MediaController, MediaEditor, TCGen and Fader. MediaController is a basic device controller. By "device" I am not referring to something thermo-nuclear, but simply a VCR, compact disk player, laser disk player or whatever. Running MediaController presents the user with a window having the basic controls of a VCR: play, pause, rewind, record, fast forward etc. A display window shows the "device" timer information, hours minutes seconds and frames in the format HH:MM:SS:FF. One can also display the number of frames, number of raw electrical pluses and device counter information via menu selection.

It is about at this point where I had some difficulty. In order to get the MediaPhile controller to operate a device successfully it needs to be told which device codes are applicable. Despite a plethora of device codes being supported by the software, there was sadly no Sony EVS-1000 or Panasonic NVS-1000 (read "anything else you can buy in Australia") in the device code menu. This should come as no surprise as model numbers for most of the codes were for video equipment in the U.S.A. marketplace.

With a little detective work I discovered that the Sony SLV-757 and Panasonic 1960 codes worked just fine. Having a Sony 90/91 general catalog helped, and looking at equipment advertising in U.S. based Video magazines will give you a good idea of model number equivalents by simply finding a model with identical or very similar external appearance. Trial and error, as a last resort can also work. In any event, the Sony and Panasonic codes seem to be universal and not tied to either NTSC or PAL based systems. I would gather the same to be true of other manufacturers. The system configuration also needs to be specified, and may be accessed through the MediaEditor software module.

The MediaEditor will let you modify device configuration files and code files. The configuration file parameters tell your Amiga were to expect information both to and from and what codes to send to these locations. For example, infrared code information for say a Sony XXX VCR or JVC ZZZ compact disk player could be sent via the left audio channel, while Sony control-L may be read via the Serial port. Other ports such as the parallel and second mouse port can also be specified. One has to specify these precisely as your device will not work properly without the correct



Infrared code design screen.



Defining video device operating parameters.

configuration in your Amiga. Similarly, without the correct infrared code you may find that your VCR goes into "fast forward" when you really wanted "pause".

The MediaEditor allows modification of "device files" which specify the characteristics of your particular device. Time spent with the manual here will pay dividends, as it is possible later achieve frame accurate editing over an edit list several hundred rows long, provided

your Amiga is told of the quirks of your particular VCR. The manual I found at times to be a little cryptic, though I was able to sort out most items, it would be nice to see at least one PAL based video system supported and described. All manner of things can be specified.

The amount of time it takes from entering play mode to when audio and video output is received, the accuracy of the machine in video frames,

the number of frames for a pre-roll and so it goes.

The MediaEditor also provides for working on an edit decision list. A list comprising scene description, edit "IN" time and edit "OUT" times may be cut, copied and pasted in a manner similar to using a word processor. When you have made the appropriate changes, a VCR device code can be specified and the edit list will be played back in the order specified in the decision list using the MediaController module.

What promises to be one of the most amazing modules is the TCGen software. It allows your Amiga to generate SMPTE time code and a SMPTE window dub complete with (or without) colour bars onto any VCR. The procedure is very simple. The Amiga's audio output is connected to the "Audio in" or "Audio dub in" of your VCR. Both window dub and SMPTE code generation use the Amiga's vertical blanking interval to generate the number of frames. The Amiga having the marvellous ability

to be genlocked to an external video source can hence generate SMPTE code in perfect sync with the external video source. This procedure naturally enough requires a genlock, but then again, so does just about anything in a desktop video environment using an Amiga. Due to severe timing constraints the program is not multi-tasking, and having an accelerator board helps increase the window dub refresh rate.

TCGen allows for drop and non-drop frame codes. NTSC and PAL video frame rates may be specified and used on either PAL or NTSC Amiga's.

Despite the fact that the TCGen module worked perfectly with the window dub, for the life of me I could not get any SMPTE numbers to make sense on the audio dub. Forcing the MediaController to update the player clock with SMPTE code only resulted in getting a display which looked like a nice telephone number, but had nothing in common with the VCR display or the associated window dub. This is a pity, as the ability to find an absolute tape address using this software would make it simply brilliant. I found that at best I could edit to about a five frame accuracy over an entire decision list. I telephoned Interactive Microsystems to try and sort out the SMPTE timing problems. Yes, they were aware of PAL system incompatibilities, and revised software would be forthcoming.

The fourth module to the MediaPhile ensemble is the Fader

program. It allows direct software control of Digital Creations genlocks. External video or computer graphics any be faded in and out using slider gadgets within the Fader window.

The system described above is only the tip of the MediaPhile iceberg.

Using the more advanced MediaProcessor Software it is possible to view and log a video tape, perform an A/B roll and much more. The Media Servers module allows for direct control of a host of devices using programs such as AmigaVision, CanDO and Superbase. With the complete MediaPhile system, "Prosumer" equipment can be made to perform edits with commensurate ease. When the SMPTE problems are sorted out, this package will be nothing short of brilliant. In my next installment, I'll be looking at the MediaProcessor software in detail, logging a videotape, making up an Edit Decision List and creating professional quality video using this system and your Amiga. □

Product Review FACT CHART

Category: Desktop Video
Product: Mediaphile DTVS
Version: 2.0
Publisher: Interactive
Micro Systems

Distributor:
Retail: US\$715
Disks: 5
Memory: 1Mb
Chip: 1Mb
Ideal: 1.5Mb

Hard Disk
Quality Video
Equipment

Manual: A4 Folder
Comments: Needs more
development
for PAL
systems.
Telephone: (603) 898 3545

MediaEditor 2.1 (edit list) - No Stops Active, Put Deck In Play-Pause

TIME	IN	OUT
✓ Jani steals home on a wild pitch	00:14:20:05	00:14:40:17
Earl Guss score two run triple	00:14:41:00	00:14:45:00
Jin ties the score in the eighth	01:02:45:13	01:04:07:00
Rich wins the game in the ninth	00:01:16:23	01:19:00:05
Score 2-2	01:03:55:00	01:03:59:12
Score 1-1	00:04:21:21	00:04:25:00
Score 1-0	00:14:01:00	00:14:05:00
Score 1-0	00:04:22:20	00:04:25:00
Score 3-0	01:16:53:04	01:17:05:00
Score 2-2	01:03:55:00	01:03:59:12
Score 1-0	00:14:01:00	00:14:05:00
Score 3-2	01:16:53:04	01:17:05:00

Build up your own edit decision

Laser Quality for a Dot-Matrix Price

by George Kimpton

Over past years, we have seen amazing leaps in printer technology. However, there have been few improvements in low-end models.

► Apart from laser devices, few of the alternatives to impact dot-matrix printers have succeeded.

They were too fussy, too awkward or too expensive. Now Canon has turned the market on end with its new bubble jet printer. It boasts the ability to output high quality print at a very reasonable price.

This printer is as good for the general ledger as the next major sales presentation or whatever else your office might produce. Quite possibly it is the most versatile, durable and quietest all-round printer on the market. In fact the quality of printout, to my mind, is limited only by the versatility of the printer driver programs.

No More Ribbons

The life of the ink cartridge is quoted at 200 million high speed characters with an "empty" warning light to alert you of the need to change.

In practical terms the test cartridge has clocked up over 1000 pages of normal letter quality text and more than 200 pages of fairly intensive graphics and is still going strong at White's Computers where the tests were carried out. Anyone who has any questions ring Chris White on 634-6636.

Changing the cartridge is easier than most ribbon printers and at \$25 is just as cheap. The big advantage is that print quality remains high and constant right to the end unlike ribbons.

The new technology also avoids one of the problems inherent in the Paintjet and Deskjet. Both of these printers use liquid ink which tends to clog the jets and bleed into the paper fibers before

drying. There are no moving parts in the BJ 130 head so there is less to go wrong.

The Bubble Jet uses a different ink which is heated by a membrane then forced out through the selected nozzles (total available 48 nozzles) in the print head to reproduce the desired print pattern. This is twice the number in a 24 pin dot matrix and gives twice the resolution (36 x 48 dot Resolution). The print is dry almost as soon as it hits the paper.

This quick drying means that just about any paper can be used up to 15 inches wide, plain or tractor feed whereas the Paintjet requires special paper for best effects. Also the Deskjet will only take A4 size sheets.

Options

The BJ 130 provides a wide range of options for fonts, type quality and type speed options. The internal font is Courier and it comes with seven different pitches (5, 6, 8.5, 10, 12, 17cpi and proportional).

The control panel allows the following choices: Character Expansion, Reverse, Shading, Bold, Sub and Superscripts and up to four typefaces per line. In addition the BJ 130 has two slots for optional font packs with choices of Orator, Gothic and Gothic Outline.

You are allowed to expand fonts to two, four or six times their normal size or down load fonts from software. Using the NEC P7 Emulator the output from Pro Page or Pagestream is equal to or better than a laser printer. When printing small text down to 4 point, the Bubble Jet is slightly superior to a basic

laser printer.

Printing speed is good at 220 characters per second, high speed setting, and 110 in high quality. Both modes give excellent letter quality printing but high speed is less dark.

For the professional it can produce many of the good graphics required for desktop publishing and can certainly turn out some very professional newsletters, letterheads and business cards etc.

This machine is indeed a versatile workhorse. It can double as a top quality word processor and a desktop printer on any paper. No special paper is needed like some other machines.

It is eminently compatible with the rest of the world with a standard parallel port and emulates a CBM MPS 1000 for Amiga users. NEC P7 emulation is available at \$100 as an option and is highly recommended for really superior graphics on the Amiga. This means the BJ 130 is compatible with almost any 9 or 24 pin dot-matrix printers.

Experience has shown that you would have to go a long way and spend a lot more to find a better and more versatile machine than the Canon BJ 130. It would take some beating at \$1495 and anyone considering purchasing a laser printer in the near future should seriously look at the Canon BJ 130 as a practical alternative.

Recommend Retail Price: \$1495

Test printer supplied by

White's Computers.

Telephone (02) 634 6636.

□

Last Word CDTV

Will CDTV be a mass market product, bringing computer technology to the masses - or just a collector's items for the rich.

► I recently attended a preview of CDTV at Commodore. The official launch of CDTV will take place in July, at the World of Commodore Show. By then there will be a few of the slightly improved Amiga programs and a hand full of new CDTV specific products. At \$1495, initial sales will be to those who can meet their desire to buy every new electronic gadget launched with the hard cash to pay for it.

For a device that is essentially a home computer with a CD-ROM tacked on, the CD player casing may be misleading for the average consumer who could see it as a very expensive CD player with a host of features they're not sure of the use for.

Of course, the dozen or so CD+G titles already available will offer the thrill of still graphics and slowly rolling song lyrics on your television - I would sooner hire a music video.

The real market will lay in educating consumers of the value of multimedia encyclopedias. Whether it's Australian pet rock collections or the interactive Burke's Backyard guide to plastic dipping your dog kennel for easy cleaning, the possible useful applications for CDTV are endless despite the seemingly trivial nature of some suggestions.

A vivid imagination screams away into the world of talking, animated databases of products, people, music, videos, books, places, holidays and computer magazines. But, when it first becomes available, you can expect to buy the unit devoid of anything very useful to do as soon as you get home and plug it in.

The Future

When a few really practical applications finally start to turn up months later, common people like you and I will stretch our plastic around the price.

Being existing owners of Amigas, we might opt to simply plug in a CDTV compatible CD-ROM. Once we finally buy, we will sit at home waiting, reading stories about great new products which will incorporate the latest in video compression routines. We will dream about the animation and video playback just around the corner.

As the right applications arrive, people will buy, tell their friends who don't believe, and they may buy. Instead of copying a disk, you will loan CD's to your friends - probably one of the entertainment titles being developed now, many of which look and sound fabulous.

Before long Commodore will set back and grin and say, "Wow, we can't make enough of these suckers. Didn't we do a great job of marketing it!". However, CDTV will be nothing more than an expensive toy which has little local value as an education tool outside of those applications traditionally available on computer. There will be few if any Australian titles. It will be selling to the same people who have computers now.

Normal people will be confused by lounge-room demonstrations on how useful it really is to know about any American geographic location at the click of an infra-red mouse, not to mention the wonderful games for \$1495 - Nintendo is sounding better.

But, as the price creeps down toward the \$1000 mark more people will buy and join the numbers waiting for some really useful Australian products. For most, CDTV will appear to obscure, too expensive, or too useless to attract the VCR owners of today to invest in this new fangled box.

Developers Need Help

What's being done to make sure that this situation doesn't happen; that there's a useful Burke's Backyard Encyclopaedia, or an Intelligent Australian Cook Book which alters the quantities depending how many people you tell it are coming for dinner and shows animated segments on how hard to beat the sauce; or an Australian Wildlife Multimedia Database complete with the sounds each animal makes?

Very little. A few struggling local developers are trying to scrape together a couple of odds and ends. CDTV deserves better. The local talent does exist. It's spread out. Different people expert in different fields.

They're not working together. There is no organisation to make good local CDTV applications essential to the success of this exciting new technology. Let's hope Commodore - or some other enterprising company - decide to inject some cash, some resources and some support into the local people that will make CDTV a success. It has the potential to sit snugly above the VCR of every second Australian home. □

Contributors

► Professional Amiga User magazine is fully desktop published by people who use the Amiga professionally every day. However, we are not experts at everything! Your contributions are welcome.

We would prefer to hear from others like ourselves who can share real hands-on experience in using the Amiga commercially. Of course, if you're an avid home user with a special skill at using a particular software package, you are also qualified to write.

We can accept material via modem - this is the preferred method. You can also send in a disk containing a clean ASCII text file - that is, one without any special formatting. Pictures, screen-grabs or illustrations should be included separately and be clearly labelled. The most important thing to include is your day time tele-

phone number.

If you're not sure of the style of writing, try reading articles by our staff writers and adopt a similar style and approach. Keep in mind, most of our readers are endeavouring to push the Amiga to its limits.

They need to know how to get more out of package, how to overcome limitations and find new ways to create and produce more efficiently. Product reviews should be coordinated with the editorial office. Materials received may not be returned. Do not send us your original. We do not normally confirm receipt of contributions. To find out if your material has been accepted, please contact us by telephone.

For more information contact the editors on (02) 879 7455 or FAX (02) 816 4714. □

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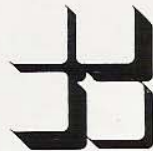
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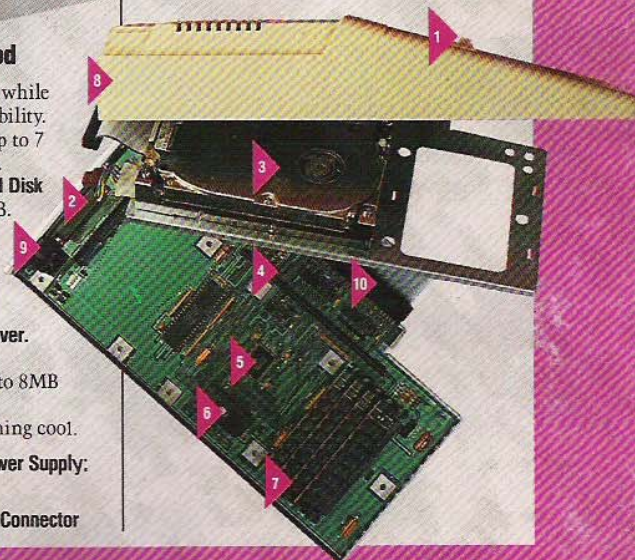
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